



MASTER MINUTES

February 1997

Volume 8 / Issue 1

Committee spotlight: State Hospital

— Helen Hronas

Looking for plants that will withstand Arkansas' hot and dry summers? Many years of trial and error in the direct, all-day sunshine that beams down at the front entrance to the State Hospital Administrative Building made experts of some of these committee members! Last summer's plantings were so remarkably beautiful that the Assistant Hospital Administrator, Dr. Addie Morris, wrote a glowing letter of appreciation to Beth Phelps for the efforts of this hardworking committee. Committee chair, Marian Berry, says that every work-day several passersby will pause long enough to compliment the flowers and thank those who are working.

Ruth Owings, who has been on the committee for about five years, has primary responsibility for choosing the colors and varieties of flowers the committee plants. Drifts of copper leaf plants were placed just in front of an evergreen background surrounding the large double bed which curves around a brick-paved area centered with a flag pole. Perennial torch tithonia (red hot poker) and gold lantana complemented a new, peach-colored portulaca (moss rose), appropriately named "Mango." The "Blue Lagoon" ageratum bordering the bed contrib-

utes to its pleasing color combination.

"It's been a real challenge to keep this bed looking fresh with a minimum of watering when it is in full sun and surrounded by brick and paving," Marian said. In the



Jim Wilkes, Catherine Hepinstall, Dorothy Wilkes and Frances Young prepare for summer at the State Hospital in May 1996 with heat-loving plants.

past, gaillardia, gomphrena, and cosmos have also been successful under these conditions. One plant that did not do too well was artemesia, which was attacked severely by white flies. Since there is no sprinkler system, Master Gardeners must water with a hose or movable sprinkler. So tough, low-maintenance plants are a must.

The State Hospital Grounds crew supplied mulch this year, which helps the soil retain moisture and makes the beds look uniform. Another, and most appreciated, favor done by the grounds crew was to cut back the overgrown and uncomfortably sharp Japanese holly which had taken over much of the bed. Now MGs can work without keeping a sharp eye out for the too close presence of the aggressive holly!

Until a few years ago, the State Hospital Committee also cared for two small corner beds near the street approaching the UAMS campus and the State Hospital, but because of all the construction there and some changes in the street, those beds have not been

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Trading post

Marie Flickinger, 758-4202, wants perennials, shrubs, annuals — just about anything.

Claude Epperson, 753-8198, has small Jade plants.

Ray Robbins, 227-6565, has raspberry plants.

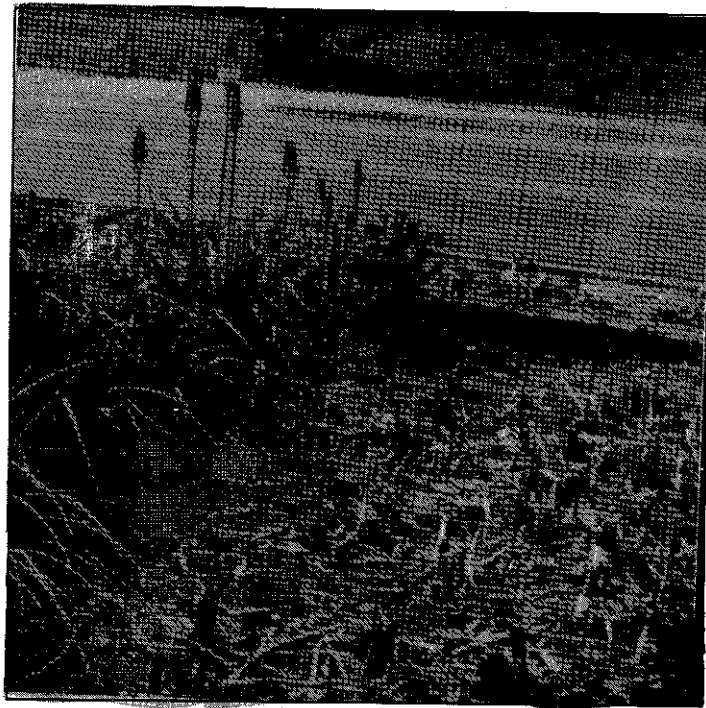
BULB DREAMS

Sleep little bulb
Dream the dreams of Spring
When chirping sounds and warm sunlight
From your slumber bring

The metamorphosis you were planted for
In the late Fall shadows,
To light a smile upon the faces
Of those your beauty dazzles.

MASTER MINUTES STAFF 1997

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Plants have to be tough to make it at the State Hospital with its full sun and asphalt.

Committee, continued from Page 1
planted recently. In addition, the Markham Street entrance planter was damaged in a car accident some time ago, and has only recently been repaired. The planter had contained lantana tended by MGs, but it required carrying buckets of water down the hill.

The State Hospital grounds crew indicate that at some point a sprinkler system will be installed, but these beds and the planter will probably be kept on hold until then.

In the fall the copper leaf plant is taken up and potted in the MG greenhouse, as it will not withstand even mildly cold weather. The beds are cleaned and hot weather plants are replaced by pansies from the greenhouse for the winter.

The committee meets early each year to plan the year's work. Last year the committee organized into four groups with captains. Each group was responsible for maintenance (watering, fertilizing, weeding, etc.) for one week each month. Several general workdays are held each year also.

Everyone on the committee enthusiastically does his or her part. In addition to Marian and Ruth, other committee members are Sally Garrison, Jane Gulley, Dick Butler, Olivia Patterson, Connie Panos, Anne Tricot, Alice Preston, Dorothy and Jim Wilks, Rick Pruitt, Frances Young, Catherine Hepinstall, Helen Hronas, Kathy Scheibner, and Dorothy Becton.

Pulaski County MG news and notes

After a month off we continued with our Pulaski County Master Gardeners General Meeting on Jan. 14. The meeting was called to order by President David Dodson and a motion was made and passed by the group to do an "Acorn" as a memorial to Elmer Van Egmond who died Dec. 29.

Elmer and Marge were in the 1992 Master Gardener Training Class. Elmer served on the Master Minutes staff, writing Master Gardener profiles, from 1993-1996. He served on the State Hospital Committee in 1993. Elmer and Marge were co-chairs of the Extension office landscape committee in 1994. They both served on the Arts Center committee in 1995 and 1996. We'll miss Elmer and his many contributions to the Pulaski County Master Gardener Program.

Ann Cooper gave us a treasurers' report of \$4,872.95 and reminded us that she posts a report on the auditorium door before each Master Gardener meeting. Don't forget your yearly dues — \$10 per person or couple. Your checks should be made to the Pulaski County Master Gardeners and mailed to Ann Cooper, 31 Rocky Valley Cove, Little Rock, Ark 72212. Beth reminded us that there is a \$50 budget for each of our garden projects.

A friendly reminder to anyone contributing to Master Minutes — the deadline for your news and articles is the day of the monthly MG General Meeting, the second Tuesday of each month. Please either bring your work to the meeting or get it to the Pulaski County Extension Office by 4 p.m.

Check out the Horticulture Hotline at 340-6660. It's up and running. Any comments or suggestions will help us make this hotline the prototype we need to take it to other communities.

We need a volunteer to replace Record

— Ann Ward and Hilda Baldrige
Keeper Julie Eckberg who is moving to Mountain Home. This is a good job for someone with limited time since you can do the work from your home at your leisure. Contact Beth for more information. Also volunteer sheets need to be returned for the Arkansas Flower and Garden Show on Feb. 21-23. We need people to help set up and break down as well as to operate our booth. If you haven't volunteered yet, now is the time.

Congratulations to Robert Murray, Ray Robbins, Dorothy Wilks, Jim Wilks, and Catherine Hepinstall on receiving their five-year pins.

Travel questionnaires were passed at the January meeting. You know, the one you received in your last Master Minutes. Please return completed questionnaires to the county extension office. We also talked about the International Master Gardener Meeting (July 15-19 in Sacramento, Calif.) and the May 7-9 trip to St. Louis.

Linda Dantzler from the Sunshine Committee informed us that Carl Hunter's wife Marion was ill and reminded us to keep her in our thoughts and also that Marge Van Egmond is doing fine and that Fred Henker is out of the hospital.

Bettye Jane Daugherty says thank you to everyone for their cards and calls.

Beth and Mrs. McKinney wanted to thank everyone for their generous Christmas donations. They received \$640 and \$425 respectively and were truly grateful.

Thanks to the following businesses and individuals for contributing door prizes for the Master Gardener Christmas Party:

Home Quarters (Little Rock), National Home Center (North Little Rock), Hocott's Garden Center, The Old Mill Bakery, Fresh Herbs for Gourmets (Mary Lee McHenry), Lakewood Gardens, Cynthia Frost, Bob Cannon.

Viburnum offers several well-suited cultivars for Central Arkansas

— Judy White

"Why would you choose that shrub when you could have something really interesting ... like a viburnum."

So spoke my next door neighbor, dearest friend, and garden guru. Little did Jane Mills know what she started. With her remark forever burned in my horticultural consciousness, viburnum became the standard against which I have measured every selection of garden shrubbery for more than a decade.

It's not hard to get hooked on viburnum. With approximately 120 species and numerous cultivars, viburnum come in both deciduous and evergreen varieties and a wide selection of sizes, habits, and textures. Luckily for Pulaski County gardeners, we seem to be smack in the middle of their hardiness range and can take advantage of the amazing variety these shrubs offer.

If you have any garden space, there is a viburnum for it. Varieties range in size from around three feet to thirty feet, and tolerate a variety of cultural conditions: shade, part shade, or full sun, and either moist or dry soil. There are viburnum that make excellent feature plantings, and others work well in a shrubbery border. Some cultivars in this family (Caprifoliaceae) will, once established, adapt admirably to less than optimum conditions. And, oh happy day, they are relatively free of pests and diseases.

There's more! Viburnums offer three-season interest. All

have blossoms, usually white to shell pink, and in forms from the most delicate lace cap to the old and much-loved "snowball" (*V. opulus*) grown in gardens throughout the south. While many of the cultivars make lovely specimens, *V. plicatum* 'Mariesii' and *V. plicatum tomentosum* 'Shasta' offer white blossoms that are compared favorably to dogwood for their beauty. Flowers of the cultivars *V. carlesii*, *V. burkwoodii*, *V. carlcephalum* and *V. juddii* are deliciously fragrant, but beware! Viburnums "range in odor from the sweetest perfume to the stenchiest stink," says Michael Dirr, an authority on anything that has a twig, and author of "Woody Landscape Plants" (826 pages).

Several viburnums provide outstanding fall foliage (in either red, purple, maroon, orange, red, or yellow) and ornamental berries that birds flock to.

Still not convinced that life is too short to live without a viburnum? Consider what Dirr says, "A garden without viburnum is akin to life without music and art."

Luckily, even the most thrifty gardeners do not have to endure this deprivation. Viburnum are available at most local nurseries. I have purchased eight different cultivars, all healthy, at large home-and-garden centers at bargain basement prices (\$5-10). Although any viburnum available at these centers is likely to be a "good one", it helps to know

what you're looking for.

Last year I passed by the *V. x rhytidophylloides* 'Alleghany' and the *V. burkwoodii* 'Mohawk' at WalMart because I was unfamiliar with them and dreaded digging holes in rock and hardpan in the July heat. To my dismay, I learned as I prepared this article that Dirr deems these cultivars "outstanding" and "very desirable."

Well, there's always tomorrow, and to help avoid missing out on future viburnum bargains, here's a quick primer of viburnum to be on the alert for.

These viburnum are evergreen and hardy in Arkansas:

David (*V. davidii*). 3-5 feet; compact; rich, blue-green foliage; dioecious with blue fruits. Dirr says, "If it never flowered or fruited it would still be a plant of the first order."

Leatherleaf (*V. rhytidophyllum*). 10-15 feet; sun/part shade; can be used in dry sites; coarse foliage; blooms can be showy in even deep shade.

Laurustinus (*V. tinus*). 6-12 feet; upright and rounded; lustrous dark green leaves are handsome all year; pink buds open to white flowers in late winter; ovoid, metallic blue fruits mature to black; excellent for screens and hedges; tolerates shade; cultivated in England since the 16th century.

Service viburnum (*V. utile* cultivars "Chesapeake" and "Es-kimo"). 6 feet; somewhat straggly habit, but Dirr says they

"The Southern Gardener's Book of Lists"

— Book review by Janet Gauntt

"The Southern Gardener's Book of Lists: The Best Plants for all Your Needs, Wants, and Whims," by Lois Trigg Chaplin, Taylor Publishing Company, 1994; softcover, \$17.95; 186 pp.

Late winter has arrived, along with stacks of seed and nursery catalogs.

It's time to make those delicious decisions about what to plant. "The Southern Gardener's Book of Lists" is a valuable tool to keep at hand when selecting ornamentals. It contains over two hundred lists of plants for particular uses. Furthermore, the book tells for which parts of the South - upper, middle, lower, or coastal - each plant is recommended. This regional information alone is worth the price of the book. The author's intent is to "end costly plant-choice mistakes." She names reliable ornamentals for almost any Southern situation.

The usual categories are included, such as best perennials for Southern shade, annuals for sunny dry areas, and trees for fall

color.

The book also contains many more specialized lists: "Ferns for Rock Walls," "Annuals That Spill over the Edge," "Shrubs for Miniature Hedges," "Easy Vines for a Mailbox or Trellis," "Perennials-with Seeds That Birds Love," "Understory Trees for Piney Woods," and "Shrubs Prized for Flower and Foliage Arrangements."

Using this book is like having my garden clippings from years of *Southern Living* and other magazines organized into one accessible handful. Chaplin's discussion is often amusing and includes interesting quotes from many Southern gardening experts.

The book is not meant to be a plant encyclopedia. One must look elsewhere to find the height, flower colors, and other features of a given plant. For locating the names of reliable plants for special purposes and difficult sites in the Southern landscape, "The Southern Gardener's Book of Lists" can be a tremendous time-saver.

Viburnum, continued from Page 4 are beautiful.

Deciduous viburnums:

Burkwood viburnum (*V. burkwoodii* cultivar "Mohawk"). 8-10 feet; compact habit; dark red buds and abundant white blossoms; long ornamental period; strong, spicy scent; resistant to leaf spot and powdery mildew; semi-evergreen; fall color is brilliant orange-red.

Doublefile (*V. plicatum tomentosum* cultivars "Grandiflorum," "Mariesii" and "Shasta"). 8-10 feet; wider than tall at maturity; horizontal, tiered branching; demands moist, well-drained soil; looks great against red brick. Dirr says, "Possibly the most elegant of flowering shrubs."

Mapleleaf viburnum (*v. acerifolia*). 4-6 feet; low and

sparse; reddish-purple foliage; extremely shade tolerant; good for naturalizing.

Tea viburnum (*V. setigerum*). 8-12 feet; leggy habit; excellent fruit production with bright red berries; best used in shrub borders.

Koreanspice viburnum (*V. carlesii* cultivar "Cayuga"). 4-8 feet; compact habit; resistant to bacterial leaf spot and powdery mildew; abundant, waxy-white hemispherical blossoms have wonderful fragrance; fruit is unimpressive — get it for the scent!

Judd viburnum (*V. x juddii*). 6-8 feet; full, rounded habit; resistant to bacterial leaf spot and powdery mildew; highly fragrant. Dirr says it is the best of the scented varieties.

European Cranberrybush (*V.*

opulus). 8-12 feet or larger; upright and spreading habit; dark, glossy green foliage in summer; fall color inconsistent; lace-cap type flowers; bright red fruit persists into winter; American Cranberrybush (*V. trilobum*) is similar.

Linden viburnum (*v. dilatatum* cultivars "Catskill," "Erie," "Iroquois" and "Oneida"). 6-8 feet; compact.



February checklist for Gardeners

BIRDS

— Libby Thalheimer

Fill those feeders and provide a regular supply of fresh water. If possible, feed suet, doughnuts, cornmeal mixed with peanut butter and/or other fatty foods to keep the birds warm.

FERTILIZING

Roses: Apply 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: give them a boost by applying a slow-release fertilizer at the recommended rate on the label.

FORCING INDOORS

Bulbs: Purchase pre-chilled bulbs such as hyacinths, paperwhites, and daffodils to force indoors for their color and fragrance.

Shrubs: Place the cut stem of a spring flowering shrub like forsythia into one gallon of warm water with two tablespoons ammonia; then enclose container and stems in a tightly closed bag.

INSECT CONTROL

Dormant oil: Use a spray such as "Sun Oil" on trees, shrubs, evergreens, roses, and the perennial border for control of borers, mites, aphids, and scale later in the year. Check label for optimum temperature conditions — usually a calm day when temperature is expected to be above 40 degrees for three days and no rain is expected for 24 hours. Spray before leaf buds open to avoid burning them. Do not use oil spray on sugar or Japanese maple, walnut, beech, or magnolia trees.

Insecticidal soap: Inspect cool season annuals and vegetable plants for aphids. Aphids can easily be controlled with insecticidal soap.

MAIL ORDERS

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

PLANS

Organize new designs for gardens; start construction of raised beds, borders, and planter boxes.

PLANTING

Plant balled and burlapped trees and shrubs and bare-root plant material. Buy only bare-root plants that are still dormant; then soak the roots in water overnight before planting. If you can't plant right away, cover the roots with moist soil or compost and store in a shady location. After Feb. 15 is the best time to plant roses, dogwood, and broad-leaf evergreens like magnolia and holly. Sow annual candy tuft, cornflowers, larkspur, and phlox drummondii. Plant sunflowers to attract the natural enemies of the white fly. In a cold frame, plant seeds as well as cuttings of shrubs.

PRUNING

Crape myrtles: 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 should be pruned every 3-5 years. The practice of annually pruning back this tree destroys its natural appearance. Fruit trees: Remove undesirable limbs, tip terminals, and thin out crowded shoots. Leave

Pulaski County Master Gardener 1997 Committee Chairpersons

ART CENTER

Jane Watkins - chair - 666-5656
Irene Davis - co-chair - 663-5678

CONTEMPLATION GARDEN

Kelly Quinn - chair - 661-4642
Lisa Mantle - co-chair - 851-4414

EXTENSION OFFICE

Jane Gulley - chair - 225-2072
Boon-Nam Blackwell - co-chair - 224-7557

GREENHOUSE

Lois Corley - chair - 666-2498
Jim and Dorothy Wilks - co-chair - 225-0524

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Gail Roberson - chair - 834-1055
Hilda Boger - co-chair - 225-0434

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Kenn Milligan - co-chair - 758-4414
Dottie Heckenbach - co-chair - 982-5573
Joan Zumwalt - co-chair - 982-8816

MOUNT HOLLY

Nancy Wade - chair - 664-846
Ruth Parker - co-chair - 664-4200

NEWSLETTER

Nan Jo Dubé - editor - 758-1457
Hilda Baldrige - data entry - 228-9815
Laurie Pierce - layout - 378-3893

OLD MILL

Wincie Hughes - chair - 758-5271
Jack Singleton - co-chair - 753-1325 (tours)

PINNACLE MOUNTAIN

Martha Whitehurst - chair - 868-4517
Bonnie Cargile - co-chair - 868-5405
Mackie Hamilton - co-chair - 225-2122

GOVERNOR'S MANSION

Karen Andersen - chair - 223-0307
Fran Henker - co-chair - 223-0665

RIVER MARKET

Kathy Scheibner - chair - 225-0478

SOCIAL COMMITTEE

Anita Chamberlin - chair - 758-1959

STATE HOSPITAL

Marian Berry - chair - 663-1693
Ruth Owings - co-chair - 455-4344

TRAVEL COMMITTEE

Martha Jones - chair - 663-2373

VICTORIAN COTTAGE

Anne Jarrard - co-chair - 375-3903
Marie Flickinger - co-chair - 758-4202

WAR MEMORIAL GARDEN

Patty Wingfield - co-chair - 225-5758
Kevin Allis - co-chair - 228-7007

Checklist, continued from Page 6

some of the branches of fruit and berry trees for small animals to chew on. Ground covers: Mow or shear to 4-6 inches English ivy, vinca minor, pachysandra, Japanese honeysuckle, wintercreeper euonymous, crownvetch, and monkey grass. Shear to 6-8 inches santolina, lavender cotton, and junipers. Roses: In early to mid-February, prune rose bushes (hybrid teas, floribundas and multifloras) to maintain their size and vigor. Prune everblooming climbers only to invigorate older plants to remove weak canes — not annually. Wait: Prune your forsythia and flowering quince after they bloom.

TRANSPLANTING

While still dormant, transplant or relocate trees and shrubs. Water in with "Superthrive" or root stimulator for all newly planted or transplanted material to ensure success.

WEEDS

Apply pre-emergence herbicides. You can apply them to an established lawn as well as newly planted ground cover and shrub beds.



MG calendar

— Laurie Pierce

The Arkansas Hosta Society will meet at 2 p.m. **Feb. 9** at Christ Episcopal Church, Capitol Avenue and Scott Street. The featured speaker will be Lucia Bjorkman. For more information, call Joe Dickens at 778-6493.

Kathleen Wesson will present "Gardens You Shouldn't Miss" at the Pulaski County Master Gardener meeting 11:30 a.m. **Feb. 11** at the State Office of the Arkansas Cooperative Extension Service on University Avenue.

The Ozark Folk Center State Park in Mountain View offers a hands-on Organic Greenhouse and Herb Gardening Workshop on **Feb. 15**. Folk Center herbalist Tina Marie Wilcox will teach basic herb and plant propagation, organic pest control, and indoor growing techniques. The cost is \$30 per person and preregistration is required. Bring a sharp knife, pruning shears, and a sack lunch. Call 269-3851 for registration information. The class will be repeated March 29, April 12, and Nov. 21; the later classes include lunch and cost \$35.

Arkansas botanical artist Kate Nessler of Kingston exhibits 38 watercolors **through Feb. 20** in the Baker Prairie Wildflower Collection Exhibit at the Missouri Botanical Garden, St. Louis. The regular admission for the Garden is \$3 adults, \$1.50 senior citizens, 12-and-under free. There is no additional charge for the exhibit. Call (314) 577-5100.

The Pulaski Conservation District is taking pre-paid orders for conservation seedling packs **through Feb. 21**. Four plant varieties will be sold in three-plant packs: Tulip Poplar, European Mountain Ash, Red Rem Honey Suckle Bush, and Common Lilac Bush. Tree species are 2-3 feet tall;

bush species are 1.5-2 feet tall. The cost of each three-plant pack is \$8. To reserve seedlings, send a check with your daytime number to Pulaski Conservation District, NBA Building Suite 202, 4000 McCain Blvd., North Little Rock, Ark. 72116. Call 771-2387 for more information.

The Arkansas Flower & Garden Show will be held **Feb. 21-23** at the State House Convention Center. Admission is \$4, \$3 senior citizens, \$1 ages 6-12. Free for volunteers. Call 340-6650.

Kevin Vaughn, plant breeder and hybridizer, is the tentative speaker at the March meeting of the Arkansas Hosta Society at 2 p.m. **March 9** at Christ Episcopal Church. For more information, call Joe Dickens at 778-6493 or 758-0814.

"Springtime in Saint Louis" is a tour for master gardeners **May 7-9** featuring Beth Phelps and Janet Carson and escorted by Dawne Hedges of Kruger Tours. The cost is \$399 double occupancy (\$389 triple occupancy, \$489 single) and includes roundtrip air fare from Little Rock to St. Louis; full breakfast each morning; motorcoach transportation; Missouri Botanical Garden; tours of the DeMenil and Cupples mansions; city tour including the Cathedral of St. Louis; Winery tour and tasting in Hermann, Mo.; two nights accommodation at the Holiday Inn Select; and much more.

A \$50 deposit is required to reserve a spot. Final payment is due March 21. Travel insurance is \$20. For more information, call Beth at 340-6650 or Dawne at 224-8747.

Other upcoming trips include the International master Gardener conference in Sacramento, Calif., **July 15-18** and a Chicago trip **Sept. 11-14**. Call Beth for more information.

"Too old to plant trees for my own gratification, I shall do it for my posterity."

— Thomas Jefferson



March 1997

Volume 8 / Issue 2

Committee Spotlight: Pulaski County Extension Office

— Helen Hronas

While the public receives tons of helpful horticultural information there, the County Extension Office landscaping has not been exactly a great advertisement for the efficacy of that advice! But big changes are in store this spring, according to Jane Gulley, committee chairperson.

Last fall a small group of Pulaski County Master Gardeners (Jane, Boon-Nam and Quentin Blackwell, Bobbye Dennis, Jim Bowling, Ann Ward) struggled to remove at least forty thoroughly diseased rose bushes from the grounds. Weedy old beds were reshaped, edged, and planted with 200 Ice Follies jonquil bulbs and several white Cherokee crape myrtles. A circular bed on the east side of the building has been reworked along with those in front, building on the hard work of veteran Master Gardener Martha Staples. Seventeen flats of pansies went into the front bed, and plans are to replace these with colorful annuals in the spring.

Beth Phelps arranged for the county to limb up a sprawling old walnut tree, and a bed will be established under it, possibly using day lilies and lirioppe. Dick Butler generously donated all kinds of beautiful day lilies which will give color in summer, while the foliage will fill in nicely most of the year.

Once they were convinced they wouldn't be responsible for day-to-day upkeep, the county grounds crew pitched in enthusiastically to help, lending

heavy implements and carting away rocks. There is no sprinkler system, but county trustees will water with hoses and oscillating sprayers in summer. Boon-Nam plans to concentrate on the lawn, a thin bermuda at present. With some feeding and water, it

should spring back quickly.

The committee desperately needs variegated lirioppe, or even plain green will do (the clumping kind, please!) to edge and fill in some of the beds. "Any donations will certainly be put to good use," Jane said, adding, "We hope everyone will notice a major improvement this spring."

The committee will be getting together after the Arkansas Flower and Garden Show to make plans for the spring and summer. Although the group did some heavy-duty work last fall to renew the landscape, much remains to be done. A general workday will be announced and all MG's will be invited to come give a boost to this project, which is of particular importance to all Pulaski County Master Gardeners, since this is the headquarters of our sponsors.



Boon-Nam Blackwell is serving as co-chair. Other members of the committee are Quentin Blackwell, Bobbye Dennis, Jim Bowling, Cheryl Todd, Sally Garrison, Sarah Henson, Jan King, and new MGs James Cherven, Julia Loyall, Laverne Counts, Janée Miller, and Laura Allen.

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What Works!

— Salah Brummett

For small terra cotta potted plants grouped in baskets, a recycled plastic butter tub makes an effective tray, holding excess water without perspiring onto the basket bottom. Also it is flexible for crowding or tucking out of sight. It's often deeper than a standard terra cotta dish, so it can hold more water without spilling or leaking.

(such as those you get with McDonald's salads or at grocery store salad bars) make excellent terrariums for seed starter beds. Seeds can germinate and grow a few inches in this protected environment and have a head start when you set them out in the spring.

To help cut flowers last longer, share your Sprite with them! Add about one-quarter to one-third of a can of lemon-flavored carbonated drink to their water.

To plant and harvest in harmony with the moon, sow seeds that bear crops above ground during the waxing of the moon (from new moon to full moon). Sow seeds that bear crops below the ground during the waning of the moon (from the day after a full moon until it is new again).

If you were wise enough to clean your tools before winter storage, a good coat of bag balm rubbed in with a soft cloth keeps them ready for their spring chores. If you forgot your tools and discover a good amount of rust on them, plain table salt mixed with water into a paste makes an excellent rust dissolver.

It's a great idea to keep at least one small aloe vera plant at home. I recently stopped a painful burn and blister almost immediately by applying the "juice" from an aloe spear.

Experiments at Cornell University show that you can improve the germination rate of direct-sown broccoli when you plant only the largest seeds in the packet, especially when sown on soil that tends to be crusty after a rain.

"What Works!" is a forum for all sorts of gardening topics and tips. You're encouraged to send in questions, comments and bright ideas to the Pulaski County Extension Office either by direct mail to 2901 W. Roosevelt Rd., Little Rock, AR 72204, E-Mail to Pulaski@uaexsun.uaex.edu or fax, 240-6669. The next topic is "Spring: tools, soil, seedlings, and suggestions." So start now to share what works for you.

The clear plastic containers with lids

Trading Post



Susanne O'Donoghue, 661-9658, has crape myrtle seedlings.

Jane Gulley, 225-2072, has grape arbor trellises (seven) that have never been used. They measure 8 feet by 5 feet. \$5 each.

Kathy Schubner, 225-7776, has yellow cannas.

Jan King 758-3446 has monarda (pink, somewhat mildew resist), Siberian Iris, Anise Hyssop.

Marie Flickenger, 758-4202, wants hydrangeas and old perennial blooming shrubs.

Marilyn Wheeler, 835-9649, and Winnie Hughes want hostas.

Pat Furr, 868-8396, wants hostas, iris, and daylilies

Marcia Holder, 664-4159, wants hostas, ferns, and daylilies

Master Gardener News and Notes

Marge Van Egmond wants to thank the Master Gardeners for the wonderful show of love, concern, and support to Elmer during the last three years. He admired the Master Gardener organization for the dedication of purpose and willingness to serve the community in an important capacity as unpaid volunteers.

The family appreciates all the heartfelt notes, cards, and telephone calls received. The flowers and food also helped us through the difficult days.

We are very grateful for your group gift of an acorn as a fitting memorial to Elmer. It is completely in keeping with his environmental beliefs.

— Marge Van Egmond

Ann Ward reminds us to pay 1997 dues. Mail \$10 per person or per couple to Ann Cooper, 31 Rocky Valley Cove, Little Rock, Ar 72212.

Camden celebrates the coming of spring Feb. 28-March 2 with the third annual Daffodil Festival at 2220 Maul Rd. Thousands of daffodil varieties are featured at seven sights around Camden, and a tour of historic homes includes three homes from the mid 1800s and a restored farm. Other attractions and activities include herb and garden craft booths, Kiwanis breakfast, Civil War encampment, storytellers, composting demonstration, and the sale of heritage daffodil bulbs and cut flowers. Admission to the festival is \$2; parking is free. Admission to the tour of homes is \$15. Call 836-6426.

The Central Arkansas Rose Society presents its annual Rose Planting and Pruning Demonstration 10 a.m.-noon March 1 at the State Capitol grounds adjacent to Seventh Street. In the event of rain, the demonstration will be

March 8. Free; call 565-9168.

The Central Arkansas Beekeepers' Association will offer a four-week bee keeping class beginning 6 p.m. March 3 at Books-a-Million, Markham and Bowman. The class will meet each Monday. Call Ray Robbins at 227-6565.

The City of Little Rock requests our help planting plugs March 6, 12, and 26. Please call Phoebe Stephens at 371-4491.

Kevin Vaughn, plant breeder and hybridizer, will be the speaker at the March meeting of the Arkansas Hosta Society at 2 p.m. March 9 at Christ Episcopal Church. For more information, call Joe Dickens at 778-6493 or 758-0814.

Dick Butler has invited us to his house, 36 River Ridge Road, for a tour of his daffodils after the March 11 monthly meeting.

The Travel Committee has organized a daffodil trip to Old Washington State Park on March 14. The bus leaves Second Presbyterian Church at 7:30 a.m. The cost is \$25. The Travel Committee also has a Nursery Shopping Trip slated for April 19. Call Martha Jones at 663-2373.

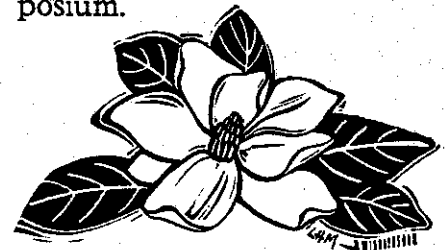
The Ozark Folk Center State Park in Mountain View offers a hands-on Organic Greenhouse and Herb Gardening Workshop on March 29. Folk Center herbalist Tina Marie Wilcox will teach basic herb and plant propagation, organic pest control, and indoor growing techniques. The cost is \$35 per person and pre-registration is required. Bring a sharp knife and pruning shears. Call 269-3851 for registration information. The class will be repeated April 12, and Nov. 21.

"Springtime in Saint Louis" is a tour for master gardeners May 7-9 featuring Beth Phelps and Janet Carson and escorted by Dawne Hedges of Kruger Tours. The cost is \$399 double occupancy (\$389 triple occupancy,

— Ann Ward and Laurie Pierce \$489 single) and includes roundtrip air fare from Little Rock to St. Louis; full breakfast each morning; charter bus transportation; Missouri Botanical Garden; tours of the DeMenil and Cupples mansions; city tour including the Cathedral of St. Louis; winery tour and tasting in Hermann, Mo.; two nights accommodation at the Holiday Inn Select; and much more.

A \$50 deposit is required to reserve a spot. Final payment is due March 21. Travel insurance is \$20. For more information, call Beth at 340-6650 or Dawne at 224-8747.

Beth is sending our mail list to the Memphis Botanic Garden so they can send us brochures about their June 7 Perennial Plant Symposium.



MASTER MINUTES STAFF 1997

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Showy Camellia an Old-fashioned Favorite for the South

— Julia Loyall

On the bleak January day when I discovered red and pink corsage-ready blossoms on the evergreens by the doorway of our new home in Virginia, I fell in love with camellias. And years later I was happy to find them here in Arkansas.

Although we have a native camellia in Ouachita County, our garden camellias are descended from immigrant stock — just like most Americans. The camellia had been cultivated and loved in Asia for many centuries before it was reported by the Moravian Jesuit priest and traveler Georg Josef Kamel in the seventeenth century. Europeans first learned about camellias in the 1700s, when small gifts of tea from travelers in Asia sparked interest in *Camellia sinensis*, the variety from which tea is made. Importation of tea began, and Londoners who were served tea at Thomas Garraway's restaurant and tea room developed a taste for this new and expensive beverage. As demand grew and volume of trade increased, exorbitant duties and taxes were levied on tea. Boston had the Tea Party, and enterprising Western merchants plotted to break the Chinese monopoly by starting their own planta-

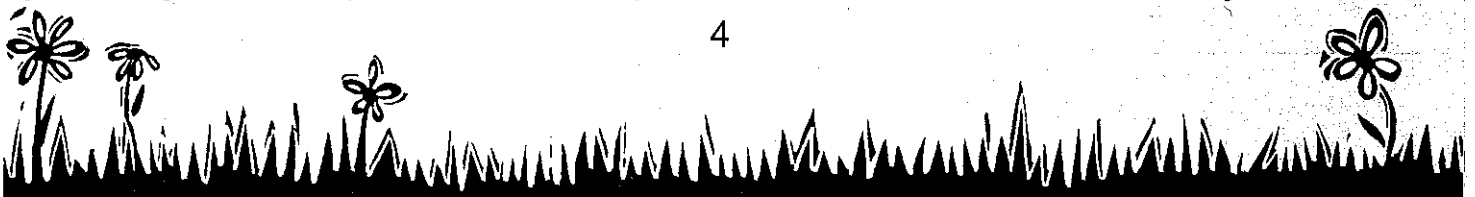
tions. When they ordered tea plants (*Camellia sinensis*) from Chinese growers, they were sent instead the ornamental shrub, *Camellia japonica*, which wouldn't make tea, but rapidly became a greenhouse favorite in Europe and America. Americans raised their camellias from seed. Wealthy American families in northern port cities tried to outdo each other with their greenhouse camellia collections. Southern planters tried seed and found camellias able to survive outdoors most winters in the deep South, especially in coastal areas. After the Civil War, camellias often remained where homes had been. The camellia became the state flower of Alabama.

On the West Coast, camellias flourished under the influence of Japanese-Americans who imported varieties from Japan and shared their expertise. Camellias were not used in gardens in the central and northern parts of the country because cultivars available at that time could not survive outside of greenhouses north of Washington, D.C.

The variety *Camellia japonica* has been most widely planted in Arkansas. It has larger leaves and flow-

ers than *Camellia sasanqua*, and may bloom from November to early spring. The fall blooming *c. sasanquas* seem to suffer less frost-damage to flowers here and are easier to raise being less particular about sun exposure and soil. Location and choice of variety are all-important for success with these plants. Slightly acid soil rich in organic material, light shade, good drainage with sufficient moisture, year-long mulch, limited use of an acid fertilizer, and location on the north side of the house are recommended for culture. While they can reach 20 feet or more, camellias can be trained to a lattice or trellis, pruned to tree-form or bonsai, grown in containers, or used as hedges. Much hardier varieties have been developed by Dr. William Ackerman, who crossed *Camellia oleifera* with *c. japonicas* and *c. sasanquas* after observing *c. oleifera* survival in a devastating 1977 freeze at the National Arboretum.

Interested in learning more about camellias? For a long-lived garden treasure, consult your local nurseryman, or contact Robert Stroud, Gul write to the American Camellia Society, One Massee Lane, Fort Valley, Ga. 31030.



"Daffodils for American Gardens"

— Book review by Gladys Whitney

"Daffodils for American Gardens," by Brent and Becky Heath. Elliott and Clark Publishing, 1995.

Remember the teacher who turned you on to a subject that you previously found less than exciting? In "Daffodils for American Gardens," Brent and Becky Heath join the ranks of those great teachers. Their love for their project is infectious though they, like some other enthusiastic people, tell you a lot more than you really wanted to know. The Heaths own the Daffodil Mart in Glouster, Va. He is a third generation grower and she runs the business side of their nursery. I was delighted to be able to put some faces and personalities to "Brent and Becky's Picks" that appear in the Daffodils Mart catalog.

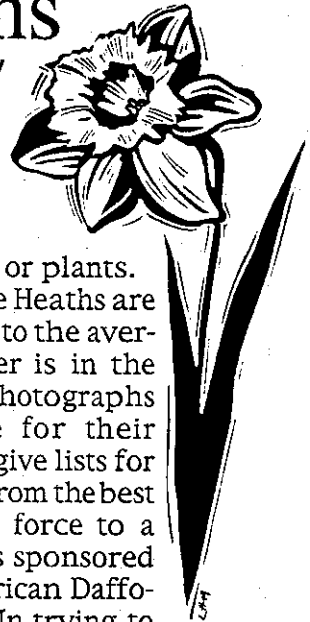
"Daffodils for American Gardens" begins with an explanation of the difference between daffodils, narcissus, and jonquils. All of them are of the genus *Narcissus*. The Heaths explain that "daffodil" is the common name and that "jonquils" are the seventh of the 12 divisions of daffodils. The authors include a great diagram with text to show the differences between the 12 divisions.

The section "Daffodil Culture" is so complete that the reader is tempted to skip parts. The authors are so thorough that they suggest certain tools and how best to use them. They also include cultural recommendations for different regions. One of their most unique suggestions was to force individual bulbs on top of cell packs to be used in planters with

other bulbs or plants.

Where the Heaths are most useful to the average gardener is in the lists and photographs they chose for their book. They give lists for everything from the best daffodils to force to a list of shows sponsored by the American Daffodil Society. In trying to find something for everyone, they really hit the mark with their photographs.

Anyone who is interested in purchasing bulbs could use this book as a reference.



"Celebrating Herbs: Thirty Years in the Herbarium and Kitchen"

— Book review by Laurie Pierce, *Arkansas Democrat-Gazette*

"Celebrating Herbs: Thirty Years in the Herbarium and Kitchen" (222 pages), published by the Arkansas Unit of the Herb Society of America, 1996, \$14.95.

More sophisticated than the average church or auxiliary group's compilation of family favorites is "Celebrating Herbs: Thirty Years in the Herbarium and Kitchen" published in November by the Arkansas Unit of the Herb Society of America. The book offers elegance, innovation and tradition with recipes such as Rose Petal and Strawberry Summer Salad, Cheddar Sage Biscuits, and Dandelion Wine.

Experimentation and enjoyment of these herb-oriented recipes are not limited to the devoted gardener or experienced cook. Mock Boursin Cheese features fresh and dried herbs combined with regular or reduced-fat cream cheese. The recipe comes together in the food processor in about 5 minutes.

For the avid culinary herbalist, German Yogurt Cheese with Fresh Herbs pairs homemade yogurt cheese with fresh chives, parsley, salad burnet, lovage and sorrel. This recipe takes about 24 hours because the yogurt cheese has to drain in the refrigerator overnight — there's also much chopping of fresh herbs to be done.

The forest green, hard-cover book features a plastic spiral spine so that it lies flat when opened on the

kitchen counter. The spine is wide enough to accommodate the stenciled title and logo of the Arkansas Unit, so it won't get lost among other self-published, regional cookbooks on the bookshelf.

Recipes include comments on the featured herbs and spices as well as approximate preparation times. The table of contents includes traditional categories: "Appetizers and Beverages," "Bread, Muffins and Rolls," "Soups and Salads," "Sandwiches and Main Dishes," "Vegetables and Side Dishes," "Desserts" and "Sauces, Dressings and Extras."

An additional chapter, "Growing Concerns: Herb Gardening in Arkansas," addresses Central Arkansas' transitional climate and varied geology with planting tips and variety names for seven common herbs.

The section on chives describes the difference between traditional onion chives (*Allium schoenoprasum*) and flat-leafed garlic chives (*a. tuberosum*). All parts of chives are edible, even the delicate blossoms. Use garlic chives when a pronounced garlic flavor is desired — try them in an herb butter. The herb-growing section also devotes space to chili peppers and a list of edible flowers.

See CELEBRATING HERBS, Page 8

March Checklist for Gardeners

— Libby Thalheimer



FERTILIZE

Cool season grasses (Rye, Fescue, and Bluegrass), houseplants, perennials, and trees (only those trees which were damaged or stressed during the previous year).

MULCH

Replenish mulch in beds and borders.

PRUNE

Glossy abelia, acuba, shrub althea, beautyberry, butterfly bush, Chaste tree, summer blooming clematis, crapemyrtle, euonymus, hibiscus, hills of snow, hollies, florist hydrangea, oakleaf hydrangea, P.G. hydrangea, juniper, mimosa, pittosporum, privet, St. Johnswort, and summer blooming spireas.

PESTICIDES

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, spray with Daconil, Funginex, or Bordeaux now and again in 2 weeks. (Consider replacing the Photinia with an alternate evergreen planting.) Apply final dormant oil spray for roses.

ANNUALS

Sow most seeds indoors near a bright window or in a coldframe. Some annuals can be planted outside now — snapdragons, dianthus, calendulas, sweet peas, alyssum, pansies, and lobelia.

LAWNS

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

ORNAMENTALS

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

PERENNIALS

Plant 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.

VEGETABLES

Plant one-year-old asparagus crowns, beet seedlings, broccoli plants, carrot seeds, cauliflower seedlings, collard seeds, sweet corn kernels, horseradish crowns, kale seeds, kohlrabi seedlings, leek seedlings, lettuce seeds, mustard greens seeds, onion transplants, parsnip seeds, peas, potato seed pieces, radish seeds, rhubarb roots, and turnip seeds. Start brussel sprout, chard, cucumber, pepper, summer squash, and tomato seeds in the hot house or cold frame.

HOUSEPLANTS

Don't move houseplants outside too soon! Move them outside in May and inside in September, as most are tender below 55 degrees.

ARBOR DAY

Arkansas celebrates Arbor Day the third Monday of March, which is March 17th this year. Many communities throughout the state recognize Arbor Day with ceremonies involving tree planting, tree care education, and free trees for planting. Get involved with your community celebration projects — they need your participation and ideas!

1997 Central Arkansas Plant Associations

— Julia Loyall

Central Arkansas Audubon Society: President - Holly Felix (225-9610). Membership \$30, \$21 for senior citizens. Monthly meeting at 7 p.m. second Thursday, board room of Arkansas Game and Fish on Natural Resources Drive. Monthly programs on environmental topics; almost monthly bird-watching field trips. Newsletter. e-mail: sdxj05b@prodigy.com

Central Arkansas Beekeepers' Association: Aleta Newell (666-0991) or Ray Robbins (227-6565). Meets at 6 p.m. second Monday each month at Books-a-Million, Markham and Bowman, with educational program, questions and discussion, visitors welcome. Membership \$12 a year.

Central Arkansas Cactus and Succulent Society: President - Roy James (821-5644). Monthly meeting 2 p.m. on second Sunday at Arkansas Analytical Lab, 501 N. University, with informal educational program and discussion. Membership (\$10 a year) includes newsletter, *The Transplant*. Annual sale of early spring flowering plants.

Arkansas Daffodil Society: President - J.A. Strauss (332-2109), treasurer - Char Roush (942-7957). Meetings twice a year, February and late September, with slides, seminar and lunch at A Place to Eat, Conway, from 10:30-12:30/1 p.m. in the spring, and a Saturday lunch with slides and bulb sale in the fall, usually at Western Sizzlin', North Little Rock. Membership is \$5 a year, with three newsletters. National Daffodil Society membership is \$20 a year, which includes a quarterly journal with pictures, sources, information.

Arkansas Daylily Society: State President - Jerry Martin (356-2754), secretary - Nancy Martin, regional vice president for Arkansas and Louisiana - Tom Flammang. Membership \$5 a year, with two issues of the newsletter, spring and fall. Two meetings: June meeting includes state tour and board meeting. October meeting has plant auction, sale of daylilies, and educational program. Membership in the national group, the American Hemerocallis Society, is \$18 (single) or \$22 (family), with the *Daylily Journal*.

Arkansas Unit of the Herb Society of America: President - Mary Wohlleb (664-0559) or call Mary Pickering (821-3092). First-year local membership \$15; thereafter national membership for \$45, which includes local and national newsletters and national annual journal, *The Herbarist*. Except in June and December, the group meets at 11:30 a.m. on the third Thursday at the Garden Center. This unit maintains three herb gardens: the medicinal garden at the Arkansas Territorial Restoration, the Garden of Exploration at the School for the Blind, and the Mansion Herbarium at the Governor's Mansion.

Central Arkansas Horticulture Society: Chairperson - Joan Broening (663-1966). Membership \$10 a year, single or couple. Meetings are on the last Tuesday of the month and anyone is welcome. October and February educational meetings are held at the Garden Center in the evening. March through September

meetings are garden visits. No meetings are held November through January.

Arkansas Hosta Society: President - Joe Dickens (778-6493 or 758-0814). Meetings are 2 p.m. the second Sunday of the month at Christ Episcopal Church, Capitol and Scott. Trips to hosta gardens across the state are planned. Membership \$3.

Central Arkansas Iris Society: President - Lucie Burley (666-9160). Meetings are at the Garden Center 2 p.m. on the third Sunday every month except January. Activities are Iris show, May garden tour and July rhizome sale. Group maintains iris bed at State Capitol. Three-dollar local dues include quarterly newsletter. American Iris Society membership (\$18) includes many publications.

Arkansas Mycological Society: President - Jay Justice (794-2669). Annual dues are \$10 (single) or \$15 (family). The Society's mission is to teach identification of Arkansas wild mushrooms. Members meet Saturday mornings every three weeks between mid-March and November to participate in learning-experience forays on public land. Members identify their finds using field guides. Newsletter, *Arkansas Fungi*, accompanies membership. This Society sponsors a mushroom workshop at Pinnacle Mountain State Park in the fall.

Arkansas Native Plant Society: President - John Pelton (794-1883). Membership is student \$10, regular \$15, family \$25, contributing \$30, life member under 60, \$350, over 60, \$150. There are quarterly editions of a newsletter, general meetings in spring and fall, and field trips during spring, summer and fall. There are two area chapters, Ozark Area Chapter and Northeast Area Chapter. A Ouachita Area Chapter, including the Little Rock area, will form this spring. Purpose of this society is conservation, preservation, and education regarding Arkansas native plants. The society sponsors scholarships, awards, and grants at college level. Seeds, plants, and used books are auctioned at the fall meetings.

Orchid Society: President - Allen Roy (568-8617). Meetings at 1:30 p.m. on the third Sunday in University Mall. Local dues of \$10 (single or family) include monthly newsletter. Next biennial orchid show, with competition, will be held in spring 1998. Plant auction in the fall at North Little Rock Community Center. Thirty-dollar membership in American Orchid Society provides the monthly bulletin, *Orchids*, and discount literature on orchid culture.

Arkansas Rose Society: President - Carol Shockley, Conway. Past president - Martha Meyer (455-1513). Associate membership \$12.50 a year, \$20 for full membership, which includes American Rose Society membership and monthly newsletter. Meetings at 7 p.m. on the second Monday at Garden Center. Yearly pruning demonstration at State Capitol in February/March and annual Rose Show the first Sunday in October.



CELEBRATING HERBS, Continued from Page 5

Intriguing recipe names encourage tests and experimentation. Cranberry Meatballs made a festive appetizer for a casual open house. We tinkered with the preparation — baking the meatballs first instead of cooking them in the sauce — and had great results. We should have made a double batch, because these zippy meatballs quickly disappeared.

Cranberry Meatballs

- 1 1/2 pounds ground beef
- 1/2 pound sausage
- 2 eggs
- 2 slices bread, crumbled
- 1/2 teaspoon garlic powder
- 1 teaspoon salt
- 1 medium onion, chopped
- 1/3 cup catsup
- 6 tablespoons fresh parsley, chopped (divided use)
- 1 (16-ounce) can whole cranberry sauce
- 3/4 cup chili sauce
- 3 tablespoons brown sugar
- 1 tablespoon lemon juice
- 1 tablespoon fresh rosemary, chopped

Heat oven to 350 degrees. Mix beef, sausage, eggs, crumbled bread, garlic powder, salt, onion, catsup, and 4 tablespoons chopped parsley and blend well. Form into small balls and place into a large baking pan with sides.

Mix cranberry sauce, chili sauce, brown sugar, lemon juice, rosemary, and 2 tablespoons chopped parsley. Heat until cranberry sauce melts. Pour over the raw meatballs and bake for 45 minutes at 350 degrees. Serve in a chafing dish with cocktail picks. Makes about 75 meatballs.

Recipe by Rosemary Arnold.

Editor's note: We baked the meatballs by themselves in the oven (20 minutes at 400 degrees), then warmed the sauce ingredients in an electric slow cooker set on high. We added the precooked, drained meatballs to the sauce an hour or two before guests arrived.

We tried one of *Democrat-Gazette* wine columnist Robert Neralich's picks, Meridian Vineyards 1995 Santa Barbara Chardonnay, at the same time we tested Mock Boursin Cheese with sumptuous results. The wine's silky texture and crisp finish complemented the rich, spicy spread. Especially delightful was the contrast of this creamy cheese and the crisp texture of the pumpnickel melba rounds discovered at the local grocery store.

Mock Boursin Cheese

- 1 clove garlic
- 1 tablespoon fresh parsley
- 1 (16-ounce) package cream cheese, room temperature
- 1 tablespoon dried dill weed
- 1/2 teaspoon dried basil
- 1/2 teaspoon dried marjoram
- 1/2 teaspoon dried chives
- 1/2 teaspoon salt
- 1/4 teaspoon dried thyme
- 1/4 teaspoon freshly ground pepper

With food processor running, drop in garlic and parsley and mince until fine. Turn off food processor, remove lid and add cream cheese, dill, basil, marjoram, chives, salt, thyme and pepper. Process until smooth. Chill and serve with crackers. Makes 2 cups.

Recipe by Mary Remmel Wohleb, who says she usually uses reduced-fat cream cheese and serves the spread in an individual-size souffle dish surrounded by crackers.

We've been dying to try Lemon Rice after spotting the exotic combination of mustard seeds and tumeric in the ingredient list and reading the editor's note preceding the recipe: "This rice dish is elegantly golden and delicately spiced. It is ideal to serve with simple curries or any Western dish. It is recommended for all who do not favor rice."

Lemon Rice

- 1/4 pound butter
- 1 teaspoon salt
- 1 teaspoon black mustard seeds (preferred) OR yellow mustard seeds
- 2 teaspoons tumeric
- 3 cups cooked rice
- Juice of one lemon, strained.

Over medium heat, melt the butter. Add salt, mustard seeds and tumeric. Stir until blended and the mustard seeds dance. Add the rice and stir well until heated through. Add the lemon juice and serve. Makes 6 servings.

Recipe by Mary Worthen, a founding member of the Arkansas Unit of the Herb Society of America and to whom "Celebrating Herbs" is dedicated.

The Arkansas Unit of the Herb Society of America maintains three herb gardens in Little Rock: The Garden of Exploration at the Arkansas School for the Blind includes several theme gardens with plants interesting to feel and smell. The Medicinal Garden at the Arkansas Territorial Restoration focuses on historic herbs, row crops, and plants that were used when Arkansas was a territory (1819-1836). The Mansion Herbarium is designed with culinary herbs to enhance state dining at the Arkansas Governor's Mansion.

The Arkansas Unit was established in 1966 to educate others in the growing and use of herbs. The Arkansas Unit sponsors herb events and gives talks on herbs and guided tours of the public gardens it maintains.

"Celebrating Herbs: Thirty Years in the Herbarium and Kitchen," published by the Arkansas Unit of the Herb Society of America, costs \$14.95 plus \$3 shipping. Send payment to The Arkansas Unit of the Herb Society of America, 32 Scenic Blvd., Little Rock, Ark. 72207-1918. The book is also available at the City Farmer, 4910 Kavanaugh Blvd., Little Rock. Proceeds benefit the Arkansas Unit and its ongoing projects.

Laurie Pierce is Assistant Home & Garden Editor at the Arkansas Democrat-Gazette. This review was published in the Food section Jan. 29.



MASTER MINUTES

April 1997

Volume 8 / Issue 3

Pools and Ponds a Refreshing Garden Addition

— Helen Hronas

What is it that makes water so irresistible in the garden? Anthony Archer-Wills, author of the "The Water Gardener," believes it's because water is the source of life. There certainly must be something compelling about this lovely design element since it has so frequently been found in gardens around the world and through the centuries.

"The Water Gardener" suggests that careful planning is the key to a successful balanced whole. "What often happens is that the garden is surrounded by planting—pushed back against the edges like chairs in a dance hall—and the best way to fill the void in the middle seems to be to dig a hole and fill it with water!" Water features may be formal, informal, or somewhere in between, but should be incorporated into the existing architectural style of the home. Formal pools are often geometrically shaped and reflect a feature of the home, such as an arch, sculpture, or statuary. The natural, informal garden is flexible and size can be adjusted to fit your pocketbook. A small pond can be made to appear larger by judicious planting with a focal point such as a specimen plant, a sculpture, or a well-placed urn or seat. An oriental technique is to hide part of the pond so that it looks larger.

Other tips from Archer-Wills are: Always allow room for plants to grow — too shallow water or too

small pots may become quickly congested; it's best to have a half day of sunlight; if the pond is too small, the water will be quickly affected by changes in temperature; toxic trees to avoid near a pond include laburnum, laurel, holly, and yew; roots will grow into the pond



Bettye Jane Daugherty's fish pond.

unless it is lined; never allow bamboo close to lined ponds; for economy, plan for an electricity source nearby; consider the safety of your pond, especially if there are children about — you may need fencing and secure gates; capping should be firmly fixed and heavy enough so that no one falls in.

Another useful book is "Water in the Garden" by James Allison. He says the key to success is to choose plants not only for the visual contribution to the garden picture, but according to their suitability for your site and micro-climate.

Spring is the best time for new planting or dividing and transplanting aquatics and moisture-loving plants. Choose young plants with shoots just emerging. Unfertilized heavy clay loam is best. Push small packets of slow release fertilizer down among roots at the beginning of the growing season. Ledges rimmed with low retaining walls to hold in the soil work best. Avoid containers when possible — the plants will rapidly outgrow them or may look unnatural. Lilies should be placed with leaves at or near the surface, the still water should be 50 degrees F, and 6 hours of sunlight are needed. Tropicals require water temp of 70 degrees F. Soil should be changed every two years.

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WATER, continued from Page 1

Spray rocks with rice water, milk, or diluted manure to give a verdant coating of moss and lichen.

As for upkeep, a formal pool will need to be almost manicured, while grooming plants will be less a priority in natural water gardens. A semi-raised pond is more accessible for cleaning and collects fewer leaves.

A well-planted natural pond, even if small, will attract butterflies, small birds, and wildfowl. If you want wildlife, provide cover near the water. Fish add movement, color, and interest, and their languid swimming can be soothing after a stressful day. Koi are friendly fish and after a time they may become so tame they will eat out of your hand. They thrive in warm water and co-exist happily with ducks. Filtration may be needed to keep the pond at the correct oxygen level for koi — usually not necessary with goldfish. Fish feel vulnerable in shallow, clear water, so darker, deeper water is preferable. Allison suggests black for the pool bottom. Terra cotta pipes or similar objects can provide hiding places. Even a very small pond can support one or two goldfish, but it must not freeze solid in winter. When choosing fish, look for lively ones. If the back fin droops, the fish may be sick. Eyes should be bright, colors pure, and there should be no lumps, ulcers, fungus, or ragged fins.

Give plants time to root and grow and to allow small creatures to build up their numbers (six weeks) before adding fish to a new pond, "Water in the Garden" advises. The pH level should be 6.5-7.5. Try adding two small goldfish. If they seem OK after a few days, add others.

Allison includes more information on fish, and a wonderful descriptive index of water-loving plants appears in both books. Beautifully illustrated and very detailed, both are well worth reading if you yearn for a pond in your garden.

Many of our own Master Gardeners share Archer-Wills and Allison's enthusiasm for water features and have made them part of their landscapes. Bettye Jane Daugherty was dazzled by water displays at her first Flower and Garden Show in 1992, and was determined to create one in a natural-looking sitting area in her garden. She trailed hoses in soft curves (no small wriggles at the edge of this pond!) until she achieved the desired effect. A trip to National Home Center netted a pre-formed pool with ledges at less than \$100. She dug a hole 6-8 inches deeper than the deepest part of her pool form and filled in with soft sandy loam. She packed soil tightly around all outside surfaces. Using a mason's level on a 2-by-4 to keep it even, she positioned the form carefully.

Then the moment of truth — she filled it with water — and it worked! Thin capping stones hide the rim and create a small waterfall. One large flat stone, carefully laid at one end of the pond so as not to touch the plastic form, provides a spot for feeding fish. Bettye Jane led plastic tubing from a submergible pump through a small berm, bringing water to the

drip stone.

Water hyacinths and Carl Hunter's irises have done well. She prefers goldfish to koi because the pool is small.

Two tips from Bettye Jean are not to use peat in submerged pots (it floats out) and to use a pre-formed pool. It won't create a "swamp" as a pool with a liner might.

Master Gardener Hilda Boger believes that the sights and sounds of moving water refresh, charm and delight. From her vast experience with streams and waterfalls, she recommends that large rocks not be used on pool bottoms because silt and leaves under and on these are difficult to clean. She prefers colored concrete bottoms and ledges around pools so pots don't have to be raised. When you have an upper pool flowing down to a lower one as she does, Hilda suggests the lower one be much larger. A drain makes cleaning easier.

Successful plants for Hilda are *Pontederia cordata* (Pickerel), which is easy and blooms in shade; Texas Dawn water lily from Lilypons, which also blooms well; and *Thalia*, which grows well but has not bloomed so far in her shady garden.



Hilda Boger's flowing water garden.

Trading Post

Suzanne O'Donoghue (661-9658) has pine straw and wants bamboo and foxgloves.

Mary Evans (664-7863) has orange day lilies.

Marilyn Wheeler (664-3434) wants shade loving plants, hosta, ferns, etc.

Jane Druff (821-2531) wants ferns and shade loving plants.

Nan Jo Dube (758-1457) has four o'clocks and wants Siberian iris.

Paul McDonnell (224-9094) wants hostas and Siberian iris.

Jan King (758-3446) has Monarda and wants purple Siberian iris.

Master Gardener News and Notes

Come early to the April 8 Pulaski County Master Gardener meeting to plant annuals in the State Extension office flower beds. Meet at 9 a.m. for coffee and doughnuts. Bring a trowel!



Call David Dodson at 225-4231 for more information. The April program will be presented by Tom Flammang, a local expert on day lilies, iris, and other plants of horticultural interest.

The Mount Holly Cemetary committee holds its first workday of the season April 10. Call Nancy Wade at 225-2106 for more information.

The Arkansas Unit of the Herb Society of America hosts its 1997 Herb Education Day 1-3 p.m. April 12 in the Blue Flame Room at the ARKLA building. Registration is \$15; call 664-0559 or 821-3092.

The River Market Committee will present information about annuals and answer horticultural questions at the Pulaski County Master Gardener booth April 12 at the farmers market. The next presentation there will be about

herbs on April 26. Call Kathy Scheibner at 225-0225 for information.

See the Master Gardener information booth at the April 13 Landscape Fair at the Maumelle Community Center 2-5 p.m. Linda Bowers Real Estate sponsors the Maumelle Landscape Fair.

Tour Twentieth Century Gardens, the woodland botanical garden on Lake Hamilton, and see Satsuki and Tisbury azaleas, iris, and spring perennials on April 19. The garden trails are steep in places and the tour requires about an hour's brisk walk. The tour costs \$6 and there is an additional \$10 fee to ride the Belle Riverboat to and from the garden. A May 31 tour includes Satsuki and Tisbury azaleas plus hydrangeas, roses, and spring flowering shrubs; a the June 14 tour highlights roses, late azaleas, day lilies, and hydrangeas. Tours board the riverboat at 12:30 p.m. and return to the landing at 5200 Central Ave. at 4:15 p.m. Reservations are required. Call 623-8101.

Nursery Tour and Shopping Trip will be April 26. Bring a box to carry your new plants! Bus departs Second Presbyterian Church at 8 a.m. Returns at 6 p.m. The cost is \$20. Call Martha Jones at 663-2373.

A floral design seminar by the Flower Guild of the National Cathedral and tours of three Quapaw Quarter gardens highlight the second Cathedral Flower Festival at Trinity Episcopal Cathedral 9:30 a.m.-5 p.m. April 26. Other activities include an outdoor market selling plants, baked goods, garden supplies and collectibles, and a 3 p.m. evensong with diocesan choir followed by high tea. All-inclusive tickets are \$30. Individual event tickets are \$25 for the floral demonstration, \$10 for the garden tours, and \$10 for lunch. Call 372-0294.

— Ann Ward and Laurie Pierce

The 1997 Pulaski County Master Gardener Picnic will be in May.

Micky Stephens from the Secretary of State's Office will speak about the Capitol Rose Gardens at our May 13 meeting.

Other upcoming trips include the International Master Gardener conference in Sacramento, Calif., July 15-18 and a Kruger tour to Chicago escorted by Janet Sept. 11-14. Call Beth for more information.

Pat Green, Mary Evans, Cecelia Buck and the Cantrell Gardens crew say thank you to all who volunteered at the Arkansas Flower and Garden Show and all who helped set up and take down our garden at the show. Special thanks to Rebecca Camp who worked until the wee hours. The whole weekend was a big success!

Hilda Boger reminds those on the Baptist Rehabilitation Committee that TB skin test is required.

Charles Emerson has agreed to maintain the Master Gardener tiller. Thank you!

MASTER MINUTES STAFF 1997

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Summer Sparkles With Perky Petunias

— Compiled by Judy White from Eleanore Lewis' National Garden Bureau report

Whether it's pots, porches or patios—petunias are the perfect posse. Edging a flower bed, spilling out of a container, or trailing from a hanging basket—petunias keep color in the garden from late spring to fall.

Petunias come in a multitude of colors and classes—and they are still evolving—but they all began from two species that were discovered in South America in the mid-1700's and 1800's. These species weren't spectacular garden flowers when first introduced to Europe in the early nineteenth century.

But those voluptuous Victorians in Germany and England began experimenting with petunias and produced garden flowers with larger blossoms, in exciting colors, and in new forms—double, and fringed. Burpee's 1888 catalog listed a "Black-throated Superbissima" which had deeply veined, dark crimson-purple petals, and a black throat.

Over in the eastern hemisphere, Japanese plant breeders who had paid close attention to Fr. Mendel's experiments with peas produced the doubled and grandiflora petunias that we are familiar to us today. The Sakata Seed Corporation's "All Double Victorious Mix" was a 1934 All-America Selections Winner.

World War II predictably interrupted petunia research, but after the

armistice, research took off in the U.S. and abroad, resulting in today's hybrid: disease-resistant, more compact, and better-branching.

PETUNIA PARTICULARS

Petunias are members of the solanaceae, or nightshade, family—which includes tomatoes, peppers, nicotiana, and salpiglossis (which the early petunias closely resembled). Many of the different classes of petunias can be used interchangeably in the garden, but some are especially suited for containers and ground covers. Many petunias have a light, sweet fragrance. This is particularly noticeable in blue petunias.

Multiflora: This class performs better than most others in adverse weather conditions, especially hot, wet spells, during which they continue to flower freely. Flowers may be single or double, and are produced in abundance all season. Singles are great for mass planting and borders; doubles make spectacular container and window box plantings. They come in a rainbow of colors, often with contrasting centers or stripes.

Grandiflora: The single-flowered grandiflora has for years been the most popular type of petunia. A sometimes sprawling plant, it is excellent for mass planting and containers. The double-flowered grandiflora petunia is probably most responsible for

"petuniamania." Its three to four inch blooms are wonderful in tubs and window boxes. Both doubles and singles come in solid, bi-color, deeply veined, striped, or picotee petals. Grandifloras do best in cool temperatures (these are the type you want for early spring and fall planting.) In high heat, the stems tend to stretch. Improvements are still being made through new cultivars.

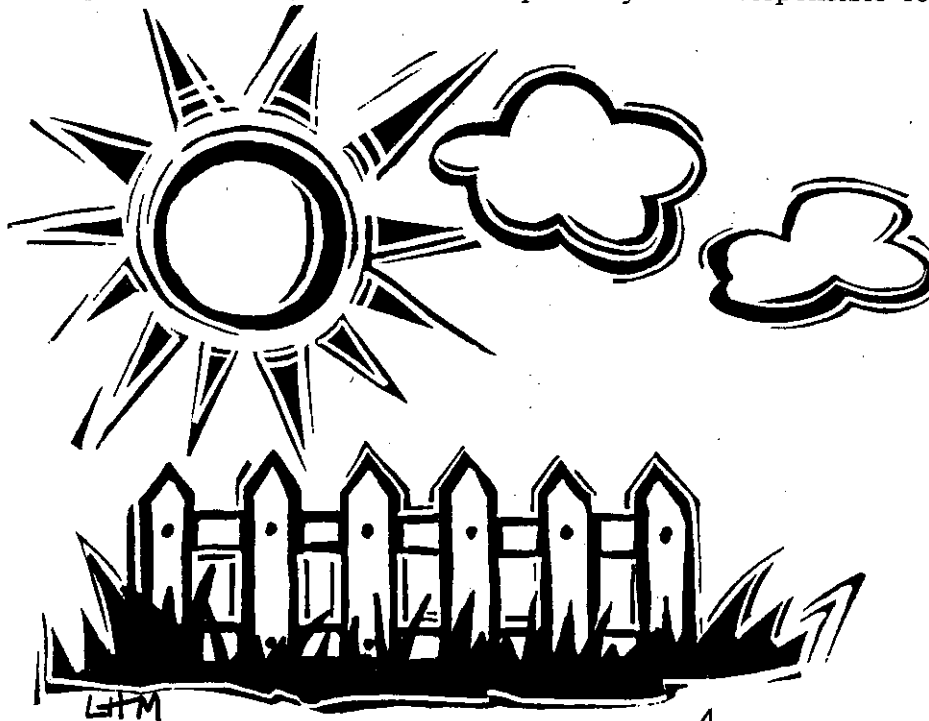
Spreading: Low-growing, spreading plants that reach only four to six inches in height, spreading "Wave" petunias can be used as a flowering ground cover, in full sun, as well as trailing in hanging baskets. Flowers form along the entire length of each stem and are produced prolifically all season without the stems being trimmed back. The flowers, two to three inches in diameter, are available only in deep magenta purple or pink at this time. Spreading petunias stand up particularly well to heat and humidity. Not all trailing petunias are "Wave" petunias, which are grown from seed.

Floribunda: Available in single and double-flowered hybrids, the floribunda petunia is basically an improved multiflora. Flowers are somewhat larger than those of a multiflora, but they are produced with the same abundance. The plants flower earlier, like a grandiflora, but are more weather tolerant—they perk up quickly after a rain shower. They are good for mass planting, container planting and hanging baskets.

Milliflora: A new class of petunias named "Fantasy." This petunia is about two-thirds the size of a normal petunia. Flowers are only 1 inch or so, but they are produced abundantly, covering the plant with color. These petite beauties bloom earlier and do not stretch. Millifloras require little maintenance and are suited to pots and baskets.

GROWING PETUNIAS

Petunias flourish in full sun (six or more hours), but they will grow in part shade. In part shade, the stems will stretch more, and the plants will flower less, but they will still add color to your landscape. If you prefer the restrained over the riotous, grow them



Petunias, Continued from Page 4

in part shade. Besides, during our hot summers, petunias welcome some midday relief from the hot sun.

Petunias will adapt to almost any kind of soil, but they do best in a light, rich soil that has good drainage. Petunias are easy to grow from seed. It's best to start them indoors in a flat with dampened commercial seed-starting mix. Plant the seeds eight to twelve weeks before the usual last-frost date (double flowered petunias need the longer period.) The seeds are very small and need light to germinate, so no matter how much you feel the urge to tuck them in, do not cover the seeds with soil!

By April 1, it will be far too late to begin seedlings, and the garden centers will be chock-a-block with flats of bedding petunias in bloom. Look for plants that have clean, green foliage — no dried out or spotted leaves. Beware of any plants with even a hint of powdery mildew. The soil should not be water-logged. The plant should have buds as well as flowers (so you can be certain you get the color and type that you want).

The best time to plant petunias is on a cloudy, breezeless day. If the plants are somewhat rootbound, tease out the root hairs a bit. Set petunias in the ground or in a container at the same level they were growing in the nursery pack. If you are planting in window boxes and containers, use a lighter commercial soil-less mix.

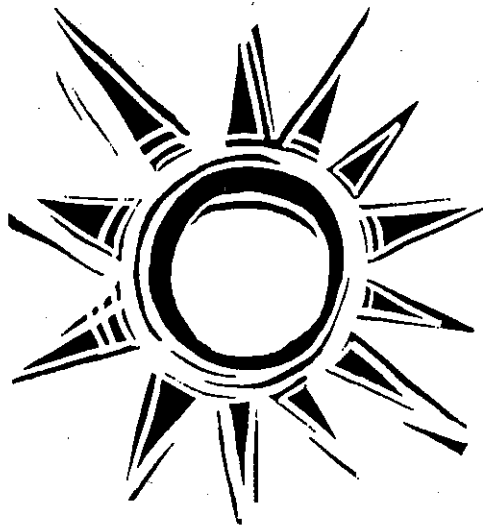
Space the petunias to allow for growth. If you want instant (or faster) gratification, go ahead, crowd the plants some. Just be prepared to fertilize and water more frequently. Mulch is a good idea, too, particularly around the double-flowered petunias, to prevent mud from spattering on the blooms and to retain soil moisture.

Consider the heights of the plants when you plan their placement. Most petunias grow 12 to 14 inches high, but floribundas may reach 16 inches, while spreading petunias reach only 6 inches.

PETUNIA MAINTENANCE

Petunias don't require a lot of care, but they do benefit from some attention. Fertilize the plants monthly with a balanced fertilizer; double-flowered cultivars appreciate a bit more, perhaps once every two to three weeks.

Because they're quite drought-tolerant, petunias seldom need daily



watering other than what they receive with rain. In prolonged dry periods, however, watch that the soil doesn't get too dry. Check window boxes and containers daily and water as needed.

Stems of most petunias will stretch a bit in the summer and bear fewer flowers. Prune them back quite severely so they will produce new shoots and more flowers. Easy-care millifloras and trailing petunias seldom need pruning.

Modern cultivars are quite disease-resistant, but they can have a few problems of which you'll want to be alert:

Petunia plants can be bothered by white fly and flea beetles. The latter may eat holes in the leaves, the former is more of a nuisance than a dire threat. Avoid growing petunias near other members of the solanaceae family, especially tomatoes and potatoes.

USING PETUNIAS

Petunias are quite versatile and can be used as a ground cover and in all types of containers, borders, and at the ends of vegetable beds. They are especially attractive around trellised beans or cucumbers where they will fill the ground-level space with color.

Petunias have earned their place in mixed plantings, too. They combine well with salvias and geraniums, alyssum, and portulaca. The deep colored magenta and purple flowers look marvelous against and amongst the silvery grays of artemesia, dusty miller, santolina, or lamb's ears (stachys.)

Petunias make excellent cut flowers, too, but because the stems are naturally sticky and lax, they are best used like pansies—in small arrangements.

Garden Sites on the World Wide Web

— David Dodson

All sites begin with <http://>

www.mc.edu/~adswww/
American Daffodil Society's site has information about the organization and information about daffodils. Check out the "divisions and varieties" area for good photos and descriptions.

www.geocities.com/athens/4134
The "Horticulture Guy" has experience in zones 6 and 7 on the East coast. There is a FAQ list, an e-mail address for questions, seasonal gardening tips, links to other related sites, and a brief glossary of botanical terms.

comp.uark.edu/~kirvin/uofa
Kelly Irvin, a graduate student at University of Arkansas Department of Horticulture has a horticulture page. It includes an Arkansas weather forecast and current conditions. Under Commercial Horticulture, check out links to FAIRS and University of Arkansas Extension Service. Other areas have good links to many home gardening sites and horticulture research sites.

www.yardcare.com/
"Ask Earl" is the yard care answer guy. There are flow charts on all your yard questions such as grass, weeds, pests, and leaves.

uaexsun.uaex.arknet.edu/
This site belongs to the University of Arkansas Extension Service. Check out the fact sheets on vegetables.

www.mobot.org/welcome.html
The Missouri Botanical Gardens site uses a "map" which is actually links in a chart form. Remembering the May trip, you might click on the "virtual tours" area for maps and photos of various parts of the gardens.

April Checklist for Gardeners

— Libby Thalheimer

VEGETABLES

After April 10, plant seeds and transplants of warm weather vegetables. Crops to sow include cucumbers, beans, melons, squash, and sweet corn. Set out young plants of tomatoes, peppers and eggplant. Note on tomatoes: If an unexpected late freeze is forecast after you have planted, 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 the leaves. Remove the plastic during the day or open a vent so it will not collect too much heat from the sun. Remove all coverings as soon as the weather warms up again.

BULBS

Remember to let leaves of spring-blooming bulbs remain until they decline. The bulbs may then be left in the ground or dug and stored. The bulb coat should be a light brown before being dug. After digging, dry them in an airy shaded spot. Then store in a cool, dry, dimly lit area. Summer bulbs such as cannas, caladiums (the strap-leaf type does well even in full sun), dahlias, gladioli, and tuberose can be set out now. You can also grow agapanthus, calla lilies, caladiums, and gloriosa lilies (vines) in the garden or in pots on a porch or terrace. Many of these will be winter hardy if mulched heavily.

PRUNING

All spring-flowering shrubs may be pruned once they have finished blooming.

MULCH

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.

ROSES

Chemical control of black spot should begin in Spring as the foliage starts to expand. Additional spray should be applied at 2-week intervals throughout the growing season. The best fungicides for black spot control are Benlate, Funginex, or Daconil. Do not plant dormant roses after April 15. Potted roses can be planted until May 15.

ANNUALS

Many flowers can be sown directly into a prepared garden bed. Sow seeds thinly in a well-prepared bed and cover as directed on the seed packet. Seeds that perform well at this time include zinnia, gomphrena, cosmos, cleome, abelmoschus, marigolds,

melampodium, sunflowers, tithonia, and morning glories. For the pansies, calendula, and other cool season annuals, an application of foliar feed fertilizer will help prolong the vigor of your plants. Aphids are hungry for your pansies and other plants this time of year. Inspect the buds and undersides of leaves for signs of them.

PERENNIALS

Divide and replant perennials at this time, making sure new shoots are present with each division. Replant at the depth they were originally growing and water with "Superthrive." As shoots emerge from those unlabeled perennials, try to identify and label them now. Plant perennial phlox. Transplant seedlings of early planted perennials. Transplanted early, seedlings get off to a good start before it gets hot. But, take care not to put tender bedding plants out too soon.

HERBS

You can grow flavorful herbs beside other garden plants as long as you avoid pesticides labeled "not for edible plants." BASIL makes an upright plant about 3 feet tall and 2 feet across. (SPICY GLOVE BASIL will stay



about 1 foot tall.) It is an annual ideal for a bright green element among your flowers. CREEPING THYME grows into a fine textured mat for the front of a border or to trail over a wall. ROSEMARY is cold hardy to 15 degrees and grows well in a pot.

Most herbs require full sun, sweet soil on the limey side. Lemon Balm, Marjoram, Mints, Pennyroyal, and Sweet Woodruff will tolerate light shade.

HANGING BASKETS

What Works!

— Shalah Brummett

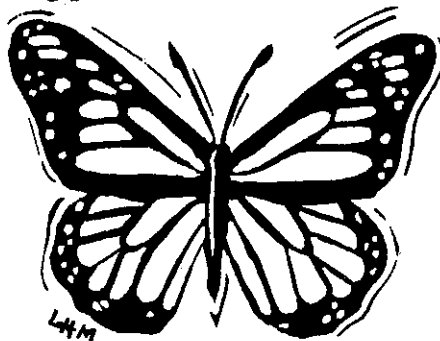
It's official! Spring arrived March 20! Easter has come, and we're into Daylight Savings Time. We here in Arkansas know that even though it's still cool, the earth is gradually warming and we'll soon be able to garden seriously.

Did you plant seeds in those plastic containers mentioned in last month's column? They should now have enough shoots to set them out after the last frost date.

Before you start digging outside, test your soil by taking a handful and squeezing. If it stays together, it's too wet to work, so wait a few days.

Plant seedlings in early morn-

ing or in the evening to avoid midday heat which could stress young plants.



If you're planting from seed, pay close attention to planting depth. If seeds are planted too shallow, they'll dry out and won't germinate. If seeds are too deep, the soil could be too cold or lack

oxygen. One rule of thumb is to plant seeds as deep as they are thick.

Start now making notes and recording what and where you planted and how it does. This will be invaluable later. Book stores have a wonderful selection of garden journals and diaries — look for them in garden section or in the gift section of your favorite book store.

A cute journal published by Reader's Digest was seen recently in Books-A-Million on West Markham Street. "Successful Gardening Journal: A Seasonal Diary for Your Garden" includes two

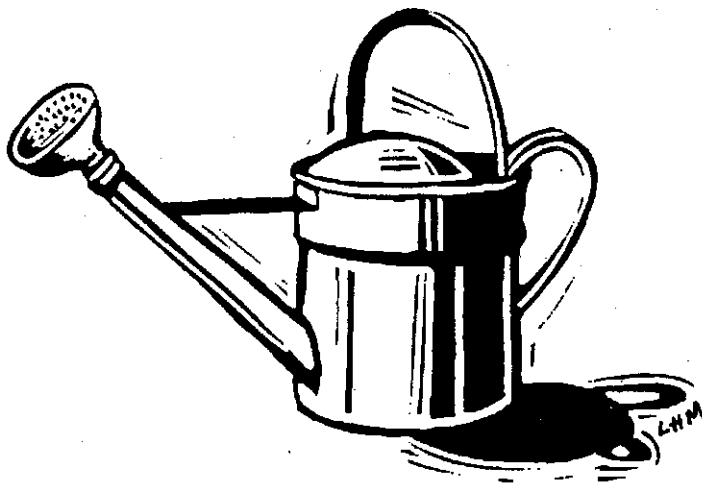
See WHAT WORKS! Page 8

CHECKLIST, continued from Page 6

Consider planting a mixed basket using several different kinds of flowers or foliage to give variety in color, texture, and form. For a large full basket, use a wire one instead of the plastic type. Begin by soaking sheets of sphagnum moss in a bucket of water. Then press the wet moss along the inside of the wire frame to form a lining. Wrap the moss over the rim, and fill the basket with sterile potting soil. Set transplants in the center of the basket. For extra fullness, cut slits in the moss and set transplants into the sides of the basket as well.

AZALEAS

Feed after flowering with a fertilizer that contains iron and other elements. (Follow package directions carefully.) Azalea roots are compact, fibrous and shallow (Granular or foliar feedings both work well.) Because they grow near the surface of the soil, they are very sensitive to drying. Water regularly during periods of drought and insulate them with a 2-3 inch layer of mulch before hot weather arrives.



EASTER LILIES

After 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 sprout again. Although they will not bloom for Easter, you will have flowers in late Spring or early Summer.

LAWNS

If centipede and Bahia lawns yellow even after they have been fertilized, they probably need an extra shot of iron. To turn the grass green again, 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 you can spray the lawn with a solution of liquid iron, such as Greenol, at the rate recommended on the label. Start mowing this season with good sharp blades on your mower. Sharp blades eliminate the ragged, brown tips on individual grass blades. This year, consider a mulching kit for your old mower. The benefits of mulching your grass clippings are a big plus toward the overall health and appearance of your lawn.

WEEDS

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

PESTS

Many people are already experiencing white fly, aphids, lacebugs, and other "bugs." Control with insecticidal soap or take other appropriate measures as soon as you notice them and before they get out of control.

"Attracting Birds to Southern Gardens"

— book review by Jan Gauntt



"Attracting Birds to Southern Gardens," by Thomas Pope, Neil Odenwald, and Charles Fryling, Jr. Taylor Publishing Company, 1993; hardcover, \$24.95; 164 pages.

The book's premise is that our gardens can be even more enjoyable when many species of songbirds can be seen and heard there. They tell how to plan a landscape in the Southeastern U.S. which attracts a variety of birds.

"Attracting Birds to Southern Gardens" explains that birds need not only food and water, but also cover and space for living. "Regardless of availability of food, a bird's prime need is protection and cover in the form of shrubbery and other dense plant life. Without protection, birds will visit feeders only in desperation, dart back to their protected perches, and will not become a viable part of the close-range landscape." The authors show how to design a yard with open spaces and varied heights of plantings so that birds feel safe near your windows where you can see them. They suggest plants that offer food, nesting sites, and refuge for various species of birds.

Garden plans for many situations are explained and illustrated. The plans range in style from formal to naturalistic, and in size from wooded acres to container hummingbird gardens.

A major part of the book describes appropriate plants. The selection of shrubs, small trees, and vines are especially thorough, and include many that are native to the Southeast. Each plant is accompanied by a photo, hardiness zone, height, types of birds attracted to it, and comments. I learned, for example, that the native cross-vine that flowers high in our oak tree provides valuable spring food for hummingbirds.

The book is well focused. Just as the plant section features only plants that are readily available and useful to birds, the bird section covers only the birds that are desirable backyard visitors in the Southeast. About 60 species of birds are pictured and discussed, and plants suggested to attract each.

An additional chapter may interest Master Gardeners who answer the Extension telephone lines. "Some Common Myths about Southern Birds," contributed by an ornithologist, discusses some of the bird questions that people ask. For instance, should a baby bird found on the ground be returned to its nest? If the bird is mature enough to stand up, leave it alone, he says.

"Attracting Birds to Southern Gardens" is very well organized and well written. It contains excellent regional information and over 200 color photographs. It makes a choice gift, serving as a fine reference and planning guide for gardeners who like to watch birds.



WHAT WORKS! Continued from Page 7
pages of grid paper for mapping and planning a garden, a plant log, plant lists, checklists, and hints.

Did anyone try to remove the rust from tools with the recipe from last month's column?

You probably had little success, since I left out an ingredient. I apologize!

Here's the corrected recipe: Make a paste using two tablespoons of salt and one tablespoon

lemon juice. Apply to the rusted area with a dry cloth and rub. Try that!

Laurie Pierce says she bought a small, tin-and-glass votive lantern at the Arkansas Flower and Garden Show for her weathered deck and now is thinking about more accessories in tin — you know — those cute citronella candles in mini buckets, old-fashioned tin wash tubs, etc. Does anyone have experience planting in tin containers? Does potting

soil react with tin? Drainage? Where's the best place to find items like this? Feed Store? Hardware Store? Discount Store?

What Works! is a forum for gardening, design, and craft ideas. Have a new inspiration, comment, or question? Write to What Works! Pulaski County Extension Office, 2901 W. Roosevelt Road, Little Rock, Ark. 72204; e-mail Pulaski@uaexsun.uaex.edu; or fax 240-6669. Please share What Works! for you.



MASTER MINUTES

May 1997

Volume 8 / Issue 4

Committee Spotlight: River Market

— Helen Hronas

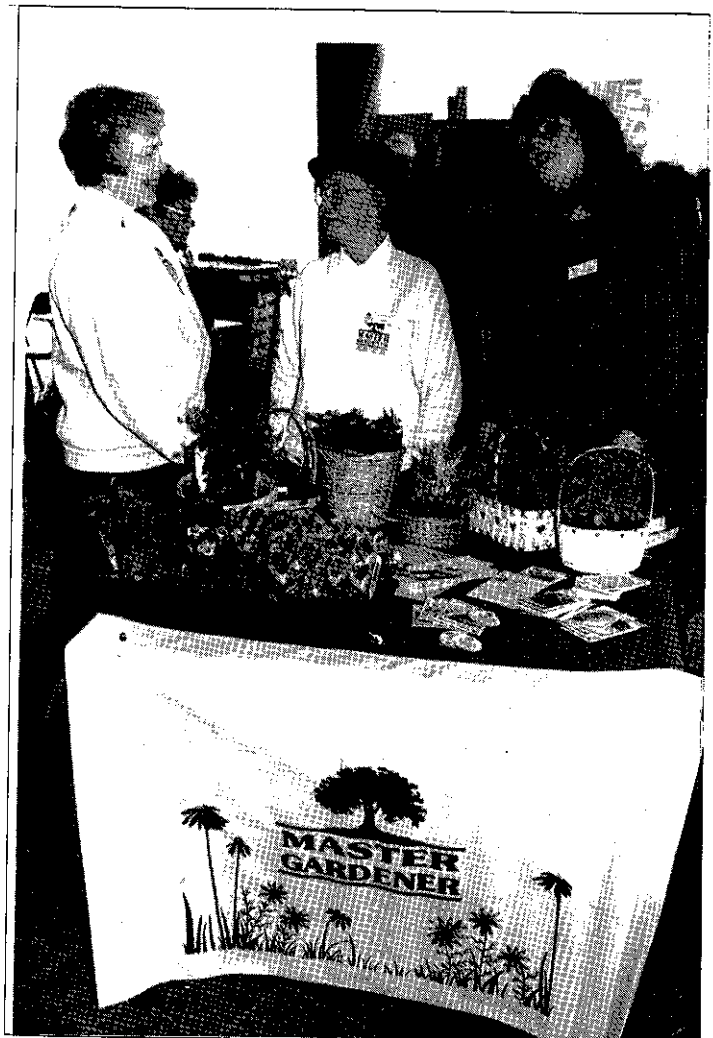
Little Rock's new River Market has something for just about everyone, and the April 12 Grand Opening included a wonderful array of fresh fruits, vegetables, flowers, and plants, as well as garden sculpture, pottery, baskets, craft items, and clothing. The River Market Committee gave away dozens of Jerusalem artichokes, gladioluses, and canna bulbs (donated by Master Gardeners) while conducting a mini-clinic to answer the horticulture questions of visitors. Master Gardeners staffed a booth provided free by the city and decorated with fresh flowers and a special backdrop of the Master Gardener's logo with flowers painted on canvas by MG Lisa Mantle. Committee members distributed educational pamphlets and helpful advice to the public all morning, concentrating this Saturday on growing annuals.

Chairman Kathy Scheibner says plans are for the booth to be operated two Saturdays each month. On April 26 information on herbs will be given, and soil samples are taken at each clinic. Growing summer vegetables, especially tomatoes, will be highlighted in May. The clinics will continue through October.

A city-wide plant exchange was started following the format of the Master Minutes "Trading

Post." Kathy and her committee hope this program will grow to benefit many local plant lovers.

The River Market committee was established in Fall 1996, and Pulaski County Master Gardeners gave away daffodil bulbs at



Photo/Kelly Quinn
Carol Newbern, Martha Staples, and Kathy Scheibner share a laugh at the Master Gardener Booth at the River Market.

their seasonally decorated booth on several Saturdays last fall. Painting and renovating in the River Market neighborhood is ongoing and Kathy believes with the opening of the arena, the crowds of

See RIVER MARKET, Page 2

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visitors will grow, giving Master Gardeners more educational opportunities and exposure. Other members of the committee are Pat Petkoff, Martha Staples, Martha Jones, and Carolyn Newbern.

The committee has worked closely with Shannon Jeffries, who is in charge of the River Market, and whose contagious "gung ho" attitude has encouraged the Pulaski County Master Gardeners. The River Market is developing into a lively improvement to the downtown district east of Main along the riverfront, formerly a rundown warehouse area.

Clinics could be extended if there were more volunteers on the committee, Kathy indicates, so if you'd like to join in this worthwhile activity, please contact Kathy or other committee members.

Trading Post

Aleta Newell, 666-0991, has small dogwoods.

Sue Anderson, 771-2447, has small spider lilies.

Marie Flickinger, 758-4202, has Jerusalem artichoke and apple mint and wants dogwood, hydrangea, and old blooming shrubs.

Pat Green, 835-6215, wants a source for inexpensive, quality caladium bulbs.

Carolyn Newbern, 663-1222, has Jasmine nudiflorum (winter jasmine).

Helen Hronas, 228-5680, has English mint and wants hyacinth bean vine and daylilies (not orange).

Martha Jones, 663-2373, has red monarda and wants shade-loving perennials.

Martha Whitehurst, 868-4517, wants red monarda.

Dorothy Veirs, 225-2106, wants a source for large, old-fashioned quince bush for jelly making.

Kathleen Wesson, 663-9146, will have impatiens that have come back from seed in late May or early June. She wants ajuga, variegated liriope, and vinca minor.

Marge Van Egmond, 224-7632, has Four O'clock seeds.

Judy White, 224-0480, has acuba.

More Garden Sites on the World Wide Web

— David Dodson

All begin with http//

www.watergarden.com/pages/build_wg.html

Build your own water garden. Complete information with illustrations. Check out the other areas listed: pond water quality, seasonal care, aquatic plant care, and fountains.

reality.sgi.com/employees/peteo

Pete's Pond Place. Instructions for making a pond and accessories for it.

www.daylilies.com/daylilies/

Has links to daylily sites on the web. Award winning daylily photos. Flower arranging using daylilies. Tour of a Dallas daylily garden.

www.assumption.edu/html/daylilies/about.html

Good photos. Click on hybridizers for photos. Try Pauline Henry of Siloam Springs.

al.com/daylily/place.html

Articles by various authors. You might try the heading "spiders".

www.neosoft.com/~bjgi/daylily.html

One person's view of daylilies and their culture, on an interesting page.

www.lostcreekna.com/hostas.htm

The complete hosta how-to page.

ccwf.cc.utexas.edu/%7ebogler/agavaceae/hosta.html

A very short history of hostas.

www.aguivc.edu/%erobsond/solutions/horticulture/docs/hosta.html

A very short page on dividing hostas, from the University of Illinois.

bingen.cs.csbsju.edu/~ecmswinge/hostas/hostas.html

A brief photo gallery of hostas.

www.vnii.net/~dogwood/

Net names are not always descriptive of their contents; this is a hosta page with photos and prices.

Master Gardener News and Notes

GENERAL MEETING

Notes from the Pulaski County Master Gardeners General Meeting held on April 8:

Tom Flammang presented an informative slide presentation on Daylilies. Thank you!

Jane Gulley presented a cake to Charles Emerson in thanks for all his work at the County Extension Office garden.

Beth says the Pulaski County Master Gardener roster for 1997 left some people off the list. Call the office, 340-6650, if your name was not listed. Here are two additions to your Master Gardener list:

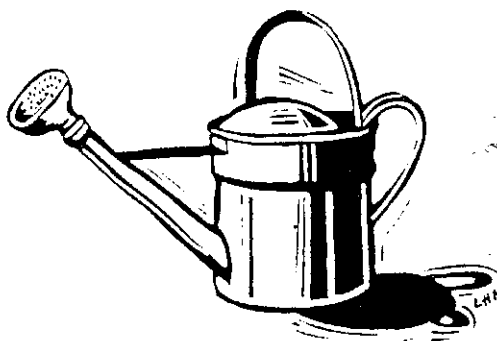
JIM CHRISTIAN

52 Pine Manor Drive
Little Rock, Ark. 72207
666-0978

MARY ROARK

23 Hogan Drive
Maumelle, Ark. 72213
851-2152.

Dues for 1997 are still trickling in. Fall 1996 graduates do not have to pay. The cost is \$10 per person or per couple. Check your address label for an asterik (*) that indicates you have not paid.



Checks should go to Ann Ward at the County Extension Office.

Beth reminds us that if we've signed up for phone time and can't make it, we should call the office and help make arrangements for someone to fill in. Call Mrs. McKinney with questions about the telephone schedule.

Anyone who has fire ants and is interested in doing a fire ant demonstration program with Donna Shanklin at the State Office should call Beth to participate.

CALENDAR

War Memorial workday is May 6 at 9 a.m.

The last Master Gardener plant sale at the greenhouse will be 9 to 11 a.m. May 6.

African Violet Society show and sale 9 a.m. to 5 p.m. May 10 at the new Jacksonville Community Center behind city hall.

Hot Springs tour with Carl Hunter will be May 30.

Tour Twentieth Century Gardens, the woodland botanical garden on Lake Hamilton, and see Satsuki and Tisbury azaleas plus hydrangeas, roses, and spring flowering shrubs on May 31. The gar-

den trails are steep in places and the tour requires about an hour's brisk walk. The tour costs \$6 and there is an additional \$10 fee to ride the Belle Riverboat to and from the garden. A June 14 tour highlights roses, late azaleas, day lilies, and hydrangeas. Tours board the riverboat at 12:30 p.m. and return to the landing at 5200 Central Ave. at 4:15 p.m. Reservations are required. Call 623-8101.

June 1 is the deadline to register for the Master Gardener Chicago trip Sept. 11-14. Call Dawn at Kruger Tours, 224-8747. Call Beth or Mrs. McKinney for more information about the trip.

Memphis Botanic Garden Perennial Plant Symposium will be held June 7. Symposium features six lectures, question and answer panel, lunch, plant sale and garden reception. \$50 per person. Call (901) 685-1566 or fax (901) 682-1561.

MASTER MINUTES STAFF 1997

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Organic Gardening: Insect Control

— Annette Hurley

FUNGAL PROBLEMS

Mix 4 teaspoons (about 1 rounded tablespoon) of baking soda and 1 teaspoon of liquid soap or vegetable oil into one gallon of water. Spray lightly on foliage of plants affected. Avoid over-using and try to keep out of the soil. Do not mix baking soda with other sprays.

GARLIC/PEPPER TEA INSECTICIDE

Liquify 2 bulbs (not cloves) of garlic and 2 hot peppers in a blender 1/3 full of water. Strain the solids and add enough water to the garlic/pepper juice to make one gallon of concentrate. Use 1/4 cup of concentrate per gallon of spray. For added strength, add 2 tablespoons of vegetable oil for each gallon of water in the sprayer. (Use for aphids, whiteflies, and other destructive insects.)

OTHER ORGANIC SOLUTIONS

Caterpillars and bagworms: Bt (*Bacillus thuringiensis*).

Slugs, snails, fleas, ticks, cinch bugs, roaches, and crickets: Diatomaceous Earth or pyrethrum.

Fire Ants: Growth regulator baits for large areas (two brands are Award and Logic), Pyrethrum/Diatomaceous Earth on individual mounds. Soapy water.

Grubworms: Beneficial nematoids and milky spore. Also molasses.

Squash and Stink Bugs: Sabadella.

Wonders of Nature are often seen in your yard, house, and especially your garden. Insects are quite fascinating and very misunderstood. Most insects are looked upon as a nuisance. Few people know their reasons for existence.

Only two percent of these creatures are considered destructive pests, but because of these few, over 1.9 billion pounds of pesticides are sold and applied each year in this country alone. This effort to "control" the environment kills beneficial insects as well as destructive ones. Nature has a balanced, natural order. Sick plants put off a stress signal which attracts the antennae of insects. Plant health and soil balance are critical elements of an organic program. Establishment and maintenance of biodiversity is the best way to control troublesome insects. This allows the insects to control themselves.

Have you ever wondered why we should poison the food we eat? When using insecticides, we are only treating the symptoms, and not the cause. Using them at the wrong time or choosing the wrong type may upset the prey-to-predator balance, creating a need for still more insecticide. Soon we have a plant that has been doused many times with poison. Then when we eat the plant — one that nature saw unfit and was trying to destroy — we wonder why we get

sick.

Earthworms, lightning bugs, centipedes, wasps, ladybugs, nematodes, beetles, praying mantises, and spiders are beneficial. They devour slugs, aphids, cutworms, and many other destructive pests. Encouraging these beneficial insects brings a welcome natural defense into your garden without the use of chemicals.

RECIPES

Here are some organic recipes for encouraging beneficial insects while repelling pests:

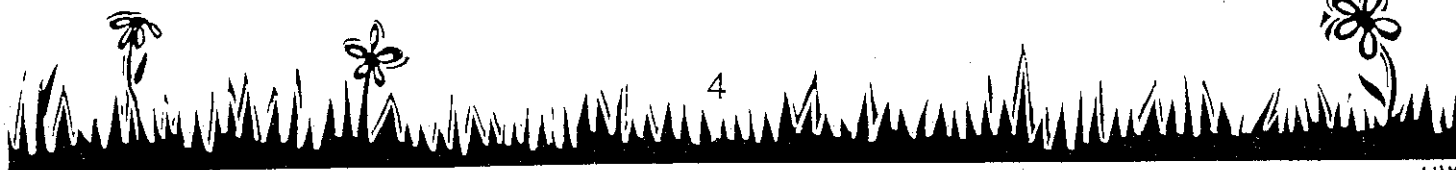
ROACH KILLER

8 ounces powdered Boric Acid
1/2 cup flour
1/8 cup sugar
1/2 small onion, chopped
1/4 cup shortening OR
bacon drippings
Enough water to form a soft dough

Cream the sugar and shortening, then mix in the boric acid, flour and onion. Blend well, then add just enough water to form small balls. Place the roach balls throughout the house in places normally inhabited by roaches. When the dough becomes brick hard, replace with a new batch.

CAUTION! Keep out of reach of children and pets. Call the poison control center if any boric acid is eaten.

FUNGICIDE FOR BLACK SPOT, POWDERY MILDEW, BROWN PATCH, AND



Plant of the Month: Thyme for Herb of the Year

— Julia Loyall

The international Herb Society declared 1997 to be "The Year of Thyme," spotlighting a humble herb with a venerable history.

Thyme is native to the western Mediterranean, and prehistoric fossils show the presence of modern thyme species on earth millions of years ago.

The Greek root of the Latin genus name *thymus* means "a rising cloud" or "vapor." Greeks burned the plant to chase stinging insects from their houses. They treasured the thyme honey of Mount Hymettus.

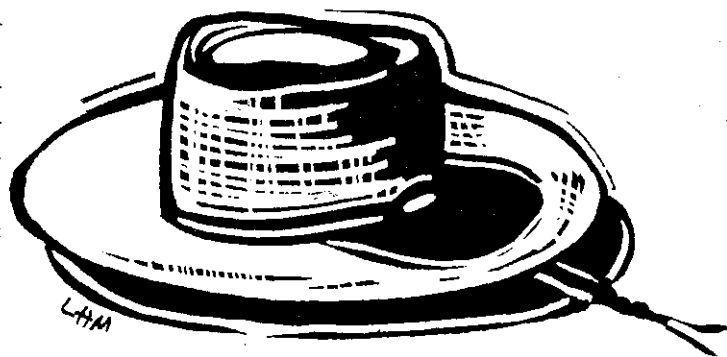
Thyme appears in Christian manger scenes. It was a symbol of elegance to the Greeks, of chivalry in the Middle Ages, and of independence in the French Revolution.

The essential oils distilled from the flowers and leaves are thymol and carvacrol, which have antiseptic and fungicidal properties. These oils were used to fight the Black Plague. Thymol was once used for worming, with sometimes fatal results. It was used as a battlefield antiseptic during World War I.

The herb was brought to America by settlers. It grows wild in a few spots in western Massachusetts and in the Catskill area, where it supposedly arrived on the wool of imported Greek sheep.

Thyme is a perennial of the mint family, *Labiatae*, with characteristic square stems. Differing proportions of thymol and carvacrol in their tissues produce the various scents of the thymes (in combination with other chemicals). Thymes may be scented like camphor, caraway, orange, lime, lemon, and the familiar culinary herb. They are sometimes perfume ingredients.

The hundreds of thymes range in heights from two inches to 16 inches or taller. Some creep but most are small, woody, many-branched shrubs. Leaves may be gray-green or bordered with white or yellow; they are stalkless, opposite, oblong or narrow and tapering, and as dainty in size as the flowers (one-quarter to one-half inch long). Flowers are



lavender to pink, tubular, and a great favorite of bees.

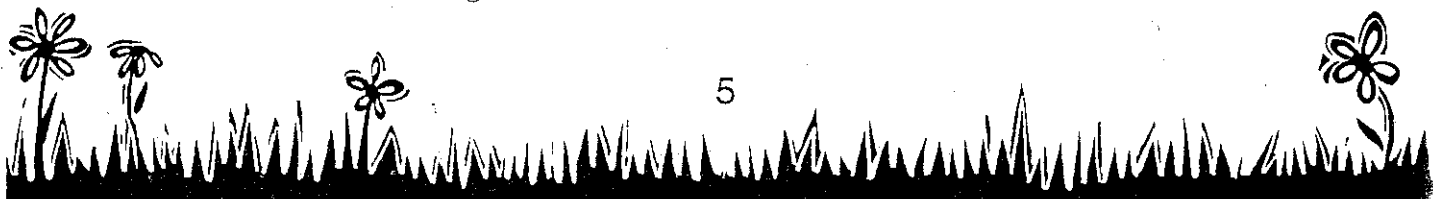
Common thyme (*Thymus vulgaris*, an upright shrub) and creeping thyme or mother-of-thyme (*Thymus serpyllum* or *Thymus praecox articus*) are the varieties most commonly used. Mother-of-thyme is a pretty evergreen ground cover often used to fill spaces in walkways. Both are evergreen and hardy in Arkansas.

The seedlings are so small that it is advisable to start with plants the first year. Propagate by taking semi-woody cutting or by layering.

Thymes are happiest in a loose well-drained, alkaline soil, pH 5.5 to 7, and will like sand, gravel, or oyster shell grit incorporated into the bed. Air circulation around the roots should be maintained in humid Arkansas summers. Remove light winter mulch early and prune out older center growth in mid-summer.

While common thyme is favored by chefs, home growers will enjoy the scented varieties local merchants have available. See "Celebrating Herbs" by the Arkansas Unit of the Herb Society of America for thyme recipes.

Medieval gardeners appeased fairies by reserving a patch of thyme for them to call home. Research on the efficacy of this method is scarce; but there is ample evidence to suggest barefoot gardeners need to remember that bees may be at work on thyme.



May Checklist for Gardeners

— Libby Thalheimer

ANNUALS

Set out transplants now. Those that perform well in full sun: Verbena, Madagascar Periwinkle, Ageratum, Marigold, Zinnia, Petunia, Celosia, Wax Begonia. Good for shade: Impatiens, Coleus, Browallia will be the best. In northern or eastern exposures with partial sun, some of the early annuals will continue all summer. These include Sweet Alyssum, Lobelia, and Annual Dianthus.

BULBS

Still okay to plant caladiums, cannas, and other summer bulbs.

ORNAMENTALS

Still okay to plant CONTAINER trees and shrubs. Spray Red Top Photinia with Daconil (you will probably need to spray 2-3 times for control). Prune Spring flowering trees & shrubs after blooming. Key to success: no one should be able to tell the plant has been pruned when you finish. Spirea, Weigela, Kolkwitzia, Quince, and Wintersweet do need occasional shaping, but Azaleas, Rhododendron, Japanese Andromeda (*Pieris*), and Loropetalum are some that very seldom need shaping.

ROSES

Continue to Spray every 7-10 days with a fungicide to prevent blackspot. Don't cut suckers that grow from beneath the graft. Instead, push 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.

LAWNS

The first application of fertilizer can 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!**

FRUIT

Fertilize established blueberry plants this month with a formula for acid-loving plants. Apply regularly through the growing season. Slugs may become a problem in strawberry plants. (See insects category below for control of slugs). Spray fruit trees with a general purpose mix to combat brown rot, scab, codling moth, curculio, and plant bugs. Spray every 7-14 days from petal fall until harvest.

VEGETABLES

Cool weather crops can be harvested now. Begin planting green beans, lima beans, squash, melons, cucumbers, tomatoes, eggplant, and peppers (seed or transplants). Soak okra seeds overnight before

planting and sow on the north side of your vegetable garden so the tall stalks won't shade the other plants. Recommended selections include 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).

MULCH

Mulch to keep the soil cooler, conserve moisture, contribute nutrients, and to keep down weeds. Lawn clippings are good and readily available mulches. Don't mix wood chips with the soil as they tie up available nitrogen for some time. Make sure that manures are thoroughly composted before using.

INSECTS

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 these with Dursban or Orthene. Two or three applications beginning around the first of June and repeated at 10 days 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. APHIDS. Signs are distorted new growth and prevention of flowering and fruiting. Kill aphids with insecticidal soap. Be sure to spray the stems and undersides of leaves.

SLUGS. They strike at night, often stripping whole stems of leaves and eating into fruit and vegetables. Diatomaceous earth can be used to kill slugs and commercial baits are effective, but toxic to children and pets. Slugs are also attracted to beer. Sink a margarine tub or its equivalent near the plants so the rim is at ground level. Fill with at least an inch of beer. In the morning, dispose of the drowned slugs. Ugh!

THRIPS. You will spot their damage before you spot them. Check your roses for this common problem. Signs of thrips are discolored blotches on petals, failure of buds to open properly, and deformed blooms. If thrips are suspected, cut affected flower and pull apart or shake over a white piece of paper. They move about quickly when disturbed. To avoid trouble, make sure plants are well irrigated; those

What Works!

— Shalah Brummett

Has everyone been clearing, pulling, planting, hauling, etc.? Are what fingernails you have left black with imbedded soil?

Our spring gardens are under way and we're planning and preparing for summer. If you still have a little space left, here are some timely suggestions:

HOW MANY PLANTS DO I NEED?

Beth Phelps tells us how to buy the right number of plants to fit the space. Summer annuals and bedding plants offer instant color and immediate results. Beth compiled the data from the National Garden Bureau.

Avoid overbuying or underbuying. It's easy to figure the number of bedding plants you need for a flower bed or garden.

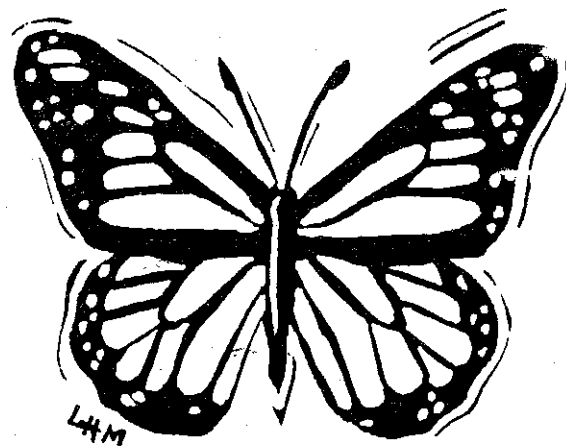
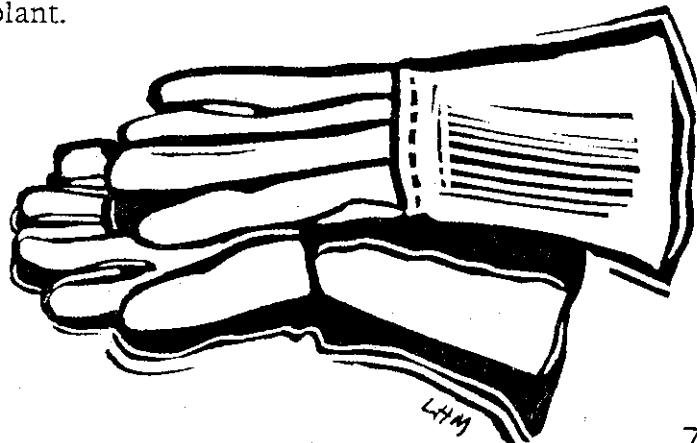
First measure and calculate the square footage of your flower bed (length X width). If it is irregularly shaped — oval, round, or long and winding — a rough estimate will be good enough.

Use the following chart to determine how many plants you need per square foot based on the recommended spacing for the plant you have selected. Multiply the number of plants needed per square foot by the number of square feet in your flower bed.

Spacing	Plants per square foot
6 inches	4
8 inches	2.25
10 inches	1.44
12 inches	1
18 inches	0.44
24 inches	0.25

Example: A 125 square foot area using plants for which the recommended spacing is 10 inches apart would need 180 plants ($125 \times 1.44 = 180$).

If you are using plants with different recommended spacing in the same garden or flower bed, estimate the square footage you will have for each plant.



LET THE COMPOSTING BEGIN!

Until you buy that super composting machine that does all your work for you, a very simple idea is this: Keep all appropriate garbage scraps in a 13-gallon trash sack until it's at least 3/4 full. Then, simply seal it, take it to a sunny outside location for three to four weeks, turn occasionally, and your compost is ready!

ORGANIC MOTH REPELLENT

How about growing your own natural moth repellent? (It has to smell better than moth balls!) For herb enthusiasts, start now to grow plants to dry later, blended and kept in cloth bags to store with woollens. You can also add the repellent to mulch and compost and at the base of plants and shrubs to protect the areas from moths that spend part of their life cycles there.

MOTH REPELLENT

2 Cups nicotiana
1/8 cup rue
1/4 cup wormwood
1/8 cup mugwort
1/2 cup santolina

NIGHT GARDENING

What about night-blooming flowers for a change? Since they attract night-flying pollinators such as moths, these flowers release a stronger fragrance with the evening. Familiar ones are nicotiana and moonflower, but also look for petunias (Celebrity white, Ultra White, or Apollo), night phlox, August hosta, lemon lily, and citron day lily.

What Works! is a forum for gardening, design, and craft ideas. Have a new inspiration, comment, or question? Write to *What Works!* Pulaski County Extension Office, 2901 W. Roosevelt Road, Little Rock, Ark. 72204; fax 240-6669; or e-mail Pulaski@uaexsun.uaex.edu Please share *What Works!* for you.

In Search of Arkansas Strawberries

— Laurie Pierce/Arkansas Democrat-Gazette

We had an early spring in Arkansas but cool April slowed the ripening of some strawberries in northern Arkansas. While some farmers in White County don't expect their crops to be ready by the first or second week in May, Frank Gibson in Star City (southeast Arkansas) has been harvesting his berries since April 1.

"The strawberry crop looks very good, and some of it is being picked already," said Keith Patterson, horticulture expert for the University of Arkansas at Fayetteville. "The weather really skipped around, and I can't give a scientific explanation on why it hurt some fruits and didn't hurt others, but it seems to have missed the strawberries."

To speed up the process, some farmers grow their strawberries on black plastic-covered planting beds. The black plastic is used to prevent the growth of weeds and to hold warmth and moisture. It keeps the berries clean and tidy, making them easier to pick and less susceptible to rot.

According to the University of Arkansas Cooperative Extension Service, strawberries are the most widely cultivated small fruit in American gardens and farms. Members of the rose family, strawberries also make a lush, spreading ground cover for the home garden. They are a favorite of many for fresh eating, pies, jams, jellies, and preserves. Strawberries are more adaptable to a range of soil and climatic conditions than any other fruit, and they are grown suc-

cessfully in every part of Arkansas.

Freshly picked Arkansas berries are found at roadside stands, local farmers markets, and at U-pick farming operations. To obtain a copy of the 1997 U-pick List published by the University of Arkansas Cooperative Extension Service, call Paul Ballantyne at 671-2000.

Here's a partial list of Arkansas growers of U-pick strawberries. It's a good idea to call first to confirm the crop, get exact directions and times, and set an appointment if necessary. Also ask if the farm provides containers for your juicy red jewels.

Arkansas County. Fred Brennehan, 274 North Forks LaGrue Road, DeWitt, Ark. 72042. Picking began April 26.. Call (870) 946-2142.

Cleveland County. Lynn's Orchard, Robert Lynn, 1200 Gavin Lane, Rison, Ark. 71665. Lynn has been harvesting strawberries since mid April. Call (870) 357-2992.

Garland County. Cox Berry Farm, David Cox, 5137 Park Avenue, Hot Springs, Ark. 71909. Cox began picking April 25. Call (501) 623-5240.

Grant County. Ann Oakes, 30 Fairview Road, Hensley, Ark. 72065. Oakes has been harvesting since April 16. Call (870) 942-5718.

Hot Spring County. James and Billie Gregory, Route 2, Box 552, Malvern, Ark. 72104. The Gregorys began picking April 19. Call (501) 337-0710.

Hot Spring County. Doug Kratz,

Route 2, Box 706, Malvern Ark. 72104. Kratz began his U-pick operation April 23. Call (501) 384-2486.

Johnson County. James Cox, Route 2, Box 156, Clarksville, Ark. 72830. Cox began harvesting the last week in April. Call (501) 754-3707.

Johnson County. Ewell Sexton, Route 2, Box 33, Clarksville, Ark. 72803. Sexton expects his berries on May 1, but call first to confirm the crop at (501) 754-3346.

Logan County. Dane Ruff, 4123 E. Arkansas 197, Scranton, Ark. 72863, 934-4678. Ruff expects berries on May 1, but call first to confirm the crop at (501) 934-4678.

Lonoke County. Barnhill Orchards, Bob and Carlotta Barnhill, 277 Sandhill Road, Lonoke, Ark. 72086. The Barnhills began picking April 16 and expect six weeks of berries. Call (501) 676-2305.

Lonoke County. Holland Bottom Farm, Larry Odom, 1986 Pickthorne Road, Cabot, Ark. 72023. Odom began U-pick operation April 17. Call (501) 843-7152.

Lonoke County. Larry High, 15533 McGill Road, Cabot, Ark. 72023. High began picking April 19. Call (501) 988-4720.

Pulaski County. Goodson's Orchard & Berry Farm, James Goodson, 8525 Berrypatch Lane, Roland, Ark. 72135. Goodson began U-pick April 24. Call (501) 868-5974.

Laurie Pierce is Assistant Home & Garden Editor at the Arkansas Democrat-Gazette. This article was published in the Food section April 23.

Checklist, continued from Page 6

under water stress are more susceptible to infestation. Also keep the garden clear of weedy patches and high grass in which thrips can breed. Remove infested flowers immediately and apply insecticidal soap, Orthene, or Orthenex. Spray three times, allowing 7-10 days to elapse between treatments.

PESTICIDES

CAUTION: Before you buy, READ THE LABEL!

Make sure what you buy is safe and effective for the plants you will be spraying. Before you open the container, READ THE LABEL! Mix at recommended rates — not stronger. Damage can be done by too strong a solution, including the death of your plants. Too weak a solution may not solve the problem. Be sure to wear protective clothing such as long sleeves, rubber gloves, boots, eye protection, and an approved mask.



MASTER MINUTES

June 1997

Volume 8 / Issue 5

Creating a Shady Paradise

— Helen Hronas

Nothing is more welcome on a hot Arkansas day than cooling shade, but shade may present a special challenge when it comes to planting. However, there is an appealing assortment of shade-loving plants to enliven the shady garden with a rich palette of colors, forms, and textures. Grouped in green sweeps of a single kind, try white nancy lamium, Frances Williams or elegans hosta, and maidenhair, cinnamon, or Japanese painted fern — along with fringed bleeding heart or bright celandine poppies. The fern fronds can shimmer above a mat of ajuga or sweet woodruff border. The evergreen foliage of lenten roses has great staying power, and impatiens are old, faithful favorites.

Master Gardener Bettye Jane Daugherty calls astilbe the “world champion bloomer in full shade,” and there’s a new dwarf that works well in front. Foxglove will bloom in dappled shade, though not as flamboyantly as in sun. Her favorite hosta is Patriot, which is an attention-getter for its bold deep green and white. Another favorite is toad lily, with its sprays of blooms resembling small orchids. As a cut flower, it is dramatic in an arrangement when the leaves are pinched off.

The shady garden is most often informal, and the natural look is enhanced by the use of a stone edging and pine straw mulch. And mulch is a *must* if there are large trees or if the soil is shallow or dry.

The natural look appeals to Master Gardener Breck Campbell, who has an almost fully shaded yard. To accommodate this condition, he uses wild flowers that thrive in deep woods — such



as mayapples, round-leaved wild ginger, yellow bellwort, trilliums, crested iris, violets, jack-in-the-pulpit, columbine (wild and domesticated), and more than a half-dozen varieties of ferns. He uses a little fertilizer in early spring, keeps it watered, and turns and fertilizes the soil at planting. Luckily, his garden already has lots of leafmold. Breck especially likes browallia with its blue, star-like blooms, and also uses begonias, day lilies, coral bells, and spiderwort in lighter shade. Yellow false indigo needs more sun than is available in Breck’s garden, he’s found.

As for shrubs, Master Gardener Judy White highly recommends gold dust and green acuba, nandina, most hollies, shade-tolerant viburnums, and azaleas which will take full shade, such as Sandra Ann (deep purple) and George L. Tabor (pale pink/lavender). A great holly for adverse (rocky and dry) conditions is Nellie Stevens. Kerria, camellias, cleyera, hydrangeas, and sweet olive work with a bit of light. Judy advises that improving the soil is crucial to a successful shade garden — lots of organic matter and mulch.

If your trees are deciduous, you have more choices, as many plants will bloom before the trees leaf out. But with evergreens overhead, better stick to the proved shade lovers. The next key element is water. Judy prefers threading a flat hose with holes

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- 8 Arkansas Plant Societies

Shade, continued from Page 1

through her hostas and deep shade plants, rather than using a soaker hose.

Dwarf daisies and pulmonaria (lungwort) work in partial sun, and Judy is very fond of her hardy heirloom purple irises passed down perhaps a half-century ago from her grandmother in Tennessee. She has had only mixed success with columbines. Judy has grown early lettuce in a bed receiving only late afternoon sun. Onions and basil can be grown early in partial shade also. Judy's spouse enjoys the interesting black Mondo grass which edges the patio.

Some shade plants recommended in *Southern Living* magazine are: Turk's cap, golden cup St.

Trading Post

Ruth Jones, 664-8977, has celadine poppies (woodland poppies).

Marilyn Wheeler, 835-9649, wants plants for shade.

Kathleen Wesson, 663-9146, has impatiens that come back from seed. Call Kathleen in early June to see if they're ready.

Dawn Jackson, 224-8958, wants oxalis.

Jan King, 758-3446, has anise hyssop, sweet Annie, and Brazilian verbena.

What Works!, continued from Page 5

adds up to 30 minutes. Each activity should last at least 8 minutes. If you've been inactive, build up to the 30 minute total gradually.

DIG HOLES.

Digging and shoveling are big calorie burners (250-300 calories pre half-hour) Each depends on the muscles of the legs and stomach, arms and shoulders, and neck and back.

MAKE A COMPOST HEAP.

If you've been thinking about starting a compost pile, now there's another good reason to do it. Turning compost burns 250-300 calories per half-hour.

LISTEN TO YOUR MUSCLES.

Pay attention to the muscles that are working for you, as well as to your exertion levels. If you can increase your range of motion or safely add weight or resistance to a garden activity, give it a try. But whatever you do, don't use your back.

MEASURING TIPS FROM BETH

1 cup of fertilizer = about 1/2

pound. A one pound coffee can equals about 2 pounds of fertilizer when full. 1 tablespoon of liquid equals 1/2 fluid ounce.

BETH SAYS SAVE A TREE

To save an existing tree on a construction site an area of 1 foot per inch of trunk diameter around the tree needs to be left undisturbed. This includes keeping heavy equipment off the area to protect the soil from compaction.



By now you know what works for me. What works for you? What Works! is a forum for gardening, design and craft ideas. Do you have an inspiration, comment, or question? Contact us at WHAT WORKS! Pulaski County Extension Office, 2901 W. Roosevelt Rd. Little Rock, AR 72204; fax 240-6669; or e-mail Pulaski@uaexsun.uaex.edu

John's wort, Mexican petunias, blue phlox, flame acanthus, and Vulcan rhododendron which is adapted to the south's heat and humidity. Solomon's seal, with its lovely foliage and drooping blossoms, is one of my favorites.

Foliage, which is usually the dominant feature in a shady garden, may be enjoyed for about eight months of the year — whereas blooms might last only eight days. So, have fun experimenting with drifts of various sizes, shapes, and textures. To add a touch of color, a few strategically placed containers (bold caladiums with asparagus fern make a nice combination) will help give a bright solution to a dark dilemma.

Garden Sites on the World Wide Web

— David Dodson

All sites begin with http://

www.geocities.com/athens/4134

The "Horticulture Guy" has experience in zones 6 and 7 on the East coast. There is a FAQ list, an e-mail address for questions, seasonal gardening tips, links to other related sites, and a brief glossary of botanical terms.

comp.uark.edu/~kirvin/uofa

Kelly Irvin, a graduate student at University of Arkansas Department of Horticulture, has a horticulture page. It includes an Arkansas weather forecast and current conditions.

www.yardcare.com/

"Ask Earl" is the yard care answer guy. There are flow charts on all your yard questions such as grass, weeds, pests, and leaves.

uaexsun.uaex.arknet.edu/ This site belongs to the University of Arkansas Extension Service. Check out the fact sheets on vegetables.

www.mobot.org/welcome.html

The Missouri Botanical Gardens site uses a "map" which is actually links in a chart form. Remembering the May trip, you might click on the "virtual tours" area for maps and photos of various parts of the gardens.

Master Gardener News and Notes

— Ann Ward and Laurie Pierce

GENERAL MEETING

Notes from the Pulaski County Master Gardeners General Meeting held on May 13:

David Dodson stated the Board agreed to make a donation to the Arts Center for a memorial to **Jim Hamilton**, a new Master Gardener who died recently. He was Co-Chairperson at the Arts Center.

Jane Watkins, who is also on the Arts Center Committee, had surgery, and **Frances Young** is recovering from pneumonia.

The Arts Center needs additional workers. Call **Irene Davis**, 663-5678.

Beth says "Helping-Hand" can use any extra produce we have to give for their organization.

The "pink" mark on your Master Minutes mailing label is for anyone who still needs to pay **1997 dues**. Call Ann Ward for more information.

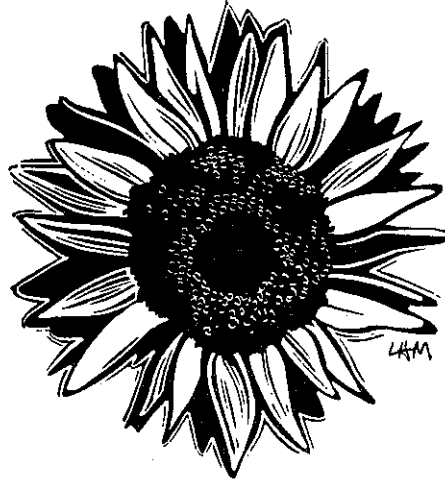
Kathleen Wesson recommended that the Pulaski County Master Gardeners purchase a **portable microphone** for guest speakers.

Congratulations! The following Master Gardeners from the 1996 class have finished their phone time!

Sue Anderson
Terri Bonner
Jim Cherven
Martha Chisenhall
Kathlene Cole
Charles Emerson
John Prather, Jr.

CALENDAR

Memphis Botanic Garden Perennial Plant Symposium will be held **June 7**. Symposium features six lectures, question and answer panel, lunch, plant sale, and garden reception. \$50



per person. Call (901)685-1566 or fax (901) 682-1561.

The Pulaski County Master Gardener Picnic will be **June 12** at Pinnacle Mountain. It starts at 5:30 p.m., and there will be an exchange of plants.

Tour Twentieth Century Gardens, the woodland botanical garden on Lake Hamilton, and see roses, late azaleas, day lilies, and hydrangeas on **June 14**. The garden trails are steep in places and the tour requires about an hour's brisk walk. The tour costs \$6 and there is an additional \$10 fee to ride the Hot Springs Belle Riverboat to and from the garden. Tours board the riverboat at 12:30 p.m. and return to the landing at 5200 Central Ave. at 4:15 p.m. Reservations are required. Call 623-8101.

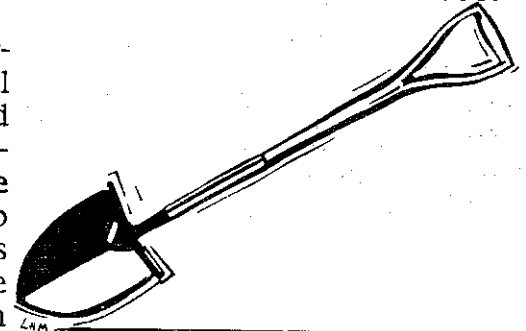
Daylily Sale at Joel Stout's in Conway will be held **June 15-22** and the following weekends. Take I-40 to Conway, exit Highway 64 north (exit 127) and proceed 6.5 miles to Sunny Gap Road (there is an Exxon Station on the corner), turn right. Go 1/2 mile and turn right at Cricket Hill Berry Farm.

The travel committee plans a tour in **July** to the Heifer Project or a visit to a Jacksonville Victo-

rian Home and the Jacksonville Master Gardener Project.

Beth says the **1998 Arkansas Flower & Garden Show** is looking for volunteers to help with Garden displays and also to help answer questions about any plants in the displays.

Master Gardener tour of English Country Gardens next spring will be **May 13-22, 1998** and features the Chelsea Flower Show, Kew Gardens, Sissinghurst Garden, Sheffield Park Garden, and Exbury Court Gardens. Our travel agent is still researching the cost (we'll know in a month or two). If you have suggestions for other gardens, call Janet Carson at 671-7000.



MASTER MINUTES STAFF 1997

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"The Serious Gardener: Reliable Roses"

— book review by Jan Gauntt

"The Serious Gardener: Reliable Roses," by The New York Botanical Garden, text by Christine Utterback with Michael Ruggiero. Clarkson Potter Publishers, New York, 1997; \$23.00; 192 pp.

Here the term "reliable roses" does not mean no-care, no-spray roses. It means rose varieties which remain healthy and attractive all season if given good general care plus fungicide spraying every seven to 10 days. The book features roses which have proved reliable with this care program in the New York Botanical Garden. Mike Ruggiero has been responsible for the New York Botanical Garden Rose Garden for many years. About 2,700 plants of 255 rose species and cultivars now grow there. This beautiful landscape serves as an outdoor laboratory to test rose varieties and rose care techniques, as well as to educate and delight the public.

The book addresses the issue that "gardeners have been turning away from roses, complaining that they are too difficult to grow, too unreliable, and naturally unhealthy." People buy popular disease-prone varieties, then find that their roses "aren't worth the effort, or aren't growing with much success."

The book's lower-maintenance approach starts by telling how to select appropriate roses for each garden situation. Not only climate, but soil drainage, air circulation, sun exposure, and reflected heat are some factors to consider. For instance, only the swamp rose will grow in part shade

and soggy soil. For hot and humid areas with poor air circulation, Ruggiero recommends Dortmund, Carefree Wonder, and several others with exceptional resistance to blackspot. For the southern U.S., he recommends against most hybrid teas and floribundas because of blackspot problems.

Preparing the soil thoroughly



before planting is the next step. The authors go through every aspect of good rose care in a clear, thorough, and easy-to-read manner. The section on pruning different types of roses gives an especially fine explanation of a task that often confuses beginners.

Ruggiero describes a minimal spray program. It should be sufficient when the right roses are planted in the right places. The sprays against fungus are either commercial or homemade (baking soda plus summer-weight horticultural oil in water). He recommends spraying for insects only when necessary, then using the least toxic method possible to control a particular insect.

Eighty roses are featured

which give fine performances in the New York Botanical Garden year after year. They include English roses and classic old roses as well as modern roses. Photos and information are given for each variety.

The major drawback of the book is that its reliable rose list is specific to Zone 6 in New York. It doesn't necessarily apply well to the rest of the country. The authors have tried to compensate by including an appendix. There they show the top ten or so performers in 27 public rose gardens across the country. However, these lists (and presumably those gardens) emphasize popular hybrid teas and floribundas introduced between 1945 and 1985. Other types of roses and recent introductions which might be more blackspot-resistant are under-represented. We also don't know how much spraying is done to cope with local conditions in those gardens.

In spite of not being oriented to our part of the country, "Reliable Roses" makes an excellent manual for anyone who wants to grow roses successfully with minimal spraying. Even experienced rosarians should find it informative and interesting.

If you are curious about which roses were listed by those Southern public gardens, here are some mentioned more than once:

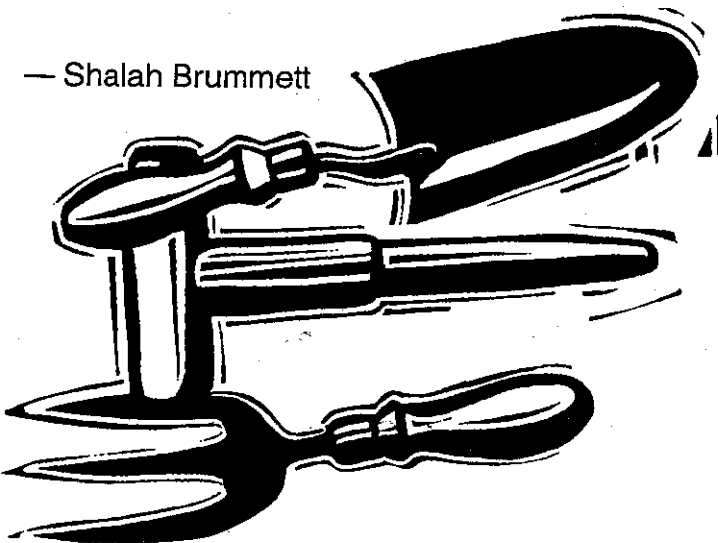
Hybrid tea: Double Delight, Peace, Olympiad, Tiffany, Mister Lincoln, Pristine, First Prize.

Floribunda: Angel Face, Betty Prior.

Grandiflora: Queen Elizabeth.

What Works!

— Shalah Brummett



Yesterday I was gardening barefoot in shorts and a T-shirt. As of this writing, I'm wearing sweats. Is this January or June? We've had a cool, wet spring that will be forgotten in central Arkansas' blazing summer. Here's to summer, my favorite season!

Many of our gardens are just taking shape, but it's not too soon to consider gathering seeds. We've probably all gathered easily identifiable and abundant seeds like sunflowers, four o'clocks, hollyhocks, and morning glories. Why not start now to collect your own rarer seeds for future gardens? Here are some guidelines:

*Beginners should probably start with the above mentioned plants. Then proceed to expensive ones, like Gerbera daisies.

*Pay attention to those with simplest storing and germination.

*Collect from plants which thrive, thereby preserving the strongest genetic traits.

*Harvest from open-pollinated plants because they are usually more like their parents than hybrids.

*Don't cut the plant too soon. Give seeds a chance to mature. When the fruit ripens it will be dry and crispy with a dark seed. This can be several weeks after flowers have gone, so be patient.

*Gather your seeds on a sunny dry afternoon, dropping into bags. If you can't garden every day, you can tie small paper (not plastic) bags over the ripening pods, then cut the stem off under the bag and turn it over.

*Sift your seeds in a sieve to separate the chaff.

*Spread on newspapers in a still, dry environment. Then store in a small dry bag or envelope. Seal, label, and place in an airtight jar.

*Some suggested seeds for saving are delphinium, bleeding heart, hyacinth bean, hardy hibiscus, impatiens, and lilies.

WHO HAS GARDENIAS?

Give gardenias their own special cocktail by watering with a mixture of 1/2 teaspoon vinegar per quart of warm water. They'll love you for it.

WHEN'S YOUR VACATION?

While you're away for about two weeks, set a plant on a brick in a bucket (No, this is not a song chorus). Then cover the brick with water. It will work.

CUTWORM DAMAGE?

If you see cutworm damage, wrap a thin strip of newspaper a few times around the seedling stems just at planting level. *Hasta la vista*, cutworms!

RUSTY TOOLS?

If you have rusty tools, try rubbing with steel-wool dipped in kerosene or turpentine; then rub briskly with wadded aluminum foil. This does sound strange. Somebody try it and give us a report! Protect your shiny tool blades by storing them in pieces of an old garden hose, slit lengthwise, as a sheath.

GARDENING AS EXERCISE

Beth saw this article in *National Gardening* — it tells how to make gardening a fitness workout.

"Maximize the Health Benefits of Gardening" January/February 1997 *National Gardening* USE A PUSH MOWER INSTEAD OF A RIDER.

This is a great way to get exercise once or twice a week. If your lawn is too big to cut without a rider, set aside a portion of your lawn for a push mower.

PLAN A DAILY GARDENING ACTIVITY.

Of course, people living in colder climates need to be creative. If you use a snow thrower, shovel a portion of your driveway. When buying seeds or other easily carried items at a garden center, park your car a mile away and walk.

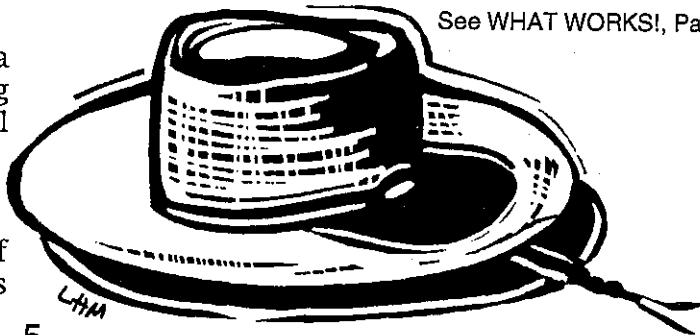
VARY YOUR ACTIVITIES.

Don't let one activity consume you, or you'll pay for it later. Break up strenuous gardening chores with more moderate enjoyable activities. For example, break up a session of post-hole digging with some quiet weeding or transplanting.

COUNT THE MINUTES.

Make sure the total daily time of garden activities

See WHAT WORKS!, Page 2



June Checklist for Gardeners

— Libby Thalheimer

ANNUALS

Cut or deadhead when your plants get leggy and sprinkle a teaspoon of 5-10-10 under each plant. Mulch thickly to retain moisture during the hot summer months. Fertilize monthly.

VEGETABLES

All seeds and seedlings should be planted by now. Keep up with the watering during dry weather. Add some lime to the soil around tomatoes about once a month. Blossom end rot on tomatoes is not a disease — it's caused by a calcium deficiency. A product called "Stop Rot" can be sprayed on affected plants. Mulch tomato plants to keep the moisture level constant and to protect plants from soil-borne diseases. Harvest tomatoes at the peak of maturity. Watch for insects and diseases. If you grow 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 corn ear worms. Renovate strawberries after they have finished producing. Remove all grass and weeds, and thin plants out if necessary. Space plants six inches apart in rows that are not more than 18 inches wide. Blackberry season starts later this month.

ORNAMENTALS AND PERENNIALS

Iris should be left alone for six weeks after blooming; then they can be lifted and divided. Peonies and roses are heavy feeders: Fertilize them regularly and keep them watered. 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 until mid-July. Fertilize monthly.

WATERING

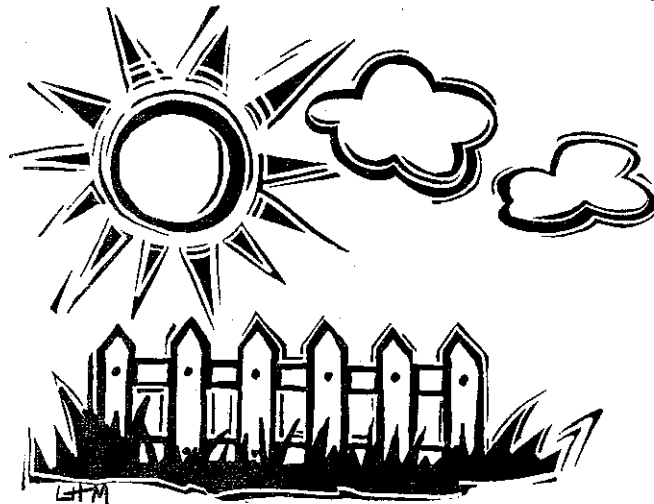
Lawns, ornamentals, fruits, and vegetables need one to one-and-a-half inches of water each week. If it doesn't rain, don't forget to water! Use soaker hoses where possible to conserve water and to keep drops off foliage. Don't water in the heat of the day — early morning is best.

PLANT

You can still plant cannas and gladiolus plus quick growing annuals such as nasturtium, nicotiana, portulaca, and zinnias in bare spots.

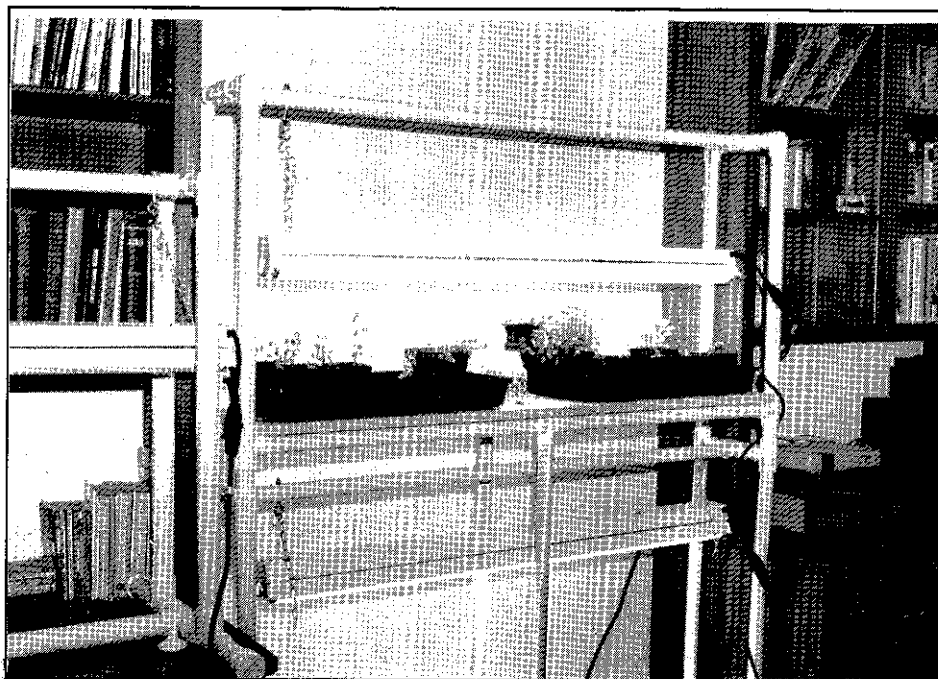
INSECT PESTS

Apply a three-inch layer of mulch around shrubs and in the vegetable garden to keep down weeds. Aphids and lace bugs are out in full force attacking everything from azaleas to tomatoes. Use insecticidal soap or malathion. Read the label before using any pesticide. Get good coverage on the underside of leaves and hose off any plant with water two hours after application if it is not certain that the plant can tolerate the pesticide. Place aluminum foil around the base of tomatoes and peppers and eggplants to reflect light on the plants and confuse aphids which seek the darker underside of the leaves. Unfortunately, flea beetles enjoy bright, dry, hot places, and the foil will encourage them. Plant chives or garlic between roses to eliminate aphids. White flies can be controlled by using insecticidal soap or a strong water spray. Traps can be made with cutting strips of bright yellow plastic coated with petroleum jelly and suspended around gardenia bushes, etc. Whiteflies are attracted to yellow and get stuck in the petroleum jelly. Clean the traps and replenish the jelly periodically. For other insect pests, consult the Cooperative Extension Office for proper and safe remedies.



I Did It Myself — Indoor Light Stand

— Jan King



Jan King was inspired to build her own indoor light stand after a visit to Old Columbus Herb Farm.

Photo/Kelly Quinn

A few months ago, Pulaski County Master Gardeners visited Jeanne Wilson at her Old Columbus Herb Farm and toured her facilities and green houses. She showed us her propagation set-up and shared her techniques.

I used tips from a magazine to build my own light stand. *Garden Gate* magazine shows how to build a light stand for propagation or for use with violets and orchids. It's very easy to make. It takes only a couple of hours and is a lot of fun to experiment with. It costs less than \$100 to make — including lights, light bulbs, and timer. I hung my lights from large eye bolts drilled through PVC pipes and used five hooks. I also placed a long piece of stained wood on top of my stand for an additional shelf. PVC can be painted any color you want. If you are interested in making a light stand and have questions, call Jan King at 758-3446.

Here's an excerpt of the article in *Garden Gate*:

"... a stand that will help you start seeds in

late winter and grow seedlings under lights until they're ready for the garden. It holds four flats of seedlings ... and has two fluorescent shop lights suspended from chains so you can change their height as the seedlings grow.

"All you need to build the stand is a hacksaw, PVC glue, and about \$30 worth of 3/4 inch PVC plumbing pipe and fittings. The vertical pipes are not glued so the stand can be dismantled and stowed in a small space.

"Two screws in a board help hold the pipe as you cut. Cut and assemble the stand ... The light stand takes six caps, 24 'T's, 6 four-ways, six 'L's, 24 three-inch sections, nine 7-inch sections, 12 18-inch sections, and 12 24-inch sections.

"Glue each section with PVC glue spread on pipe and fittings. Do not glue the long vertical pipes between sections.

"Set up the stand by inserting the long vertical pipes into the bottom and middle sections; then add the top."

Checklist, continued from Page 6

DISEASES

To control black spot, keep up a spray schedule for roses and red-tipped photinias. Clean up and destroy diseased foliage falling to the ground (do not put diseased foliage in the compost pile). Fire blight of fruit trees is a bacteria spread by bees and windblown rain that causes affected plant parts to blacken and die. Make pruning cuts several inches before the infected parts and sterilize instruments between cuts. Next year, use a spray which includes streptomycin during the bloom period.

Arkansas Plant and Gardening Societies

Central Arkansas Audubon Society: President - Holly Felix (225-9610). Membership \$30, \$21 for senior citizens. Monthly meeting at 7 p.m. second Thursday, board room of Arkansas Game and Fish on Natural Resources Drive. Monthly programs on environmental topics; almost monthly bird-watching field trips. Newsletter. e-mail: sdxj05b@prodigy.com

Central Arkansas Beekeepers' Association: Aleta Newell (666-0991) or Ray Robbins (227-6565). Meets at 6 p.m. second Monday each month at Books-a-Million, Markham and Bowman, with educational program, questions and discussion, visitors welcome. Membership \$12 a year.

Arkansas Daffodil Society: President - J.A. Strauss (332-2109), treasurer - Char Roush (942-7957). Meetings twice a year, February and late September, with slides, seminar and lunch. In the spring at A Place to Eat, Conway, and a Saturday lunch with slides and bulb sale in the fall, usually at Western Sizzlin', North Little Rock. Membership is \$5 a year, with three newsletters. National Daffodil Society membership is \$20 a year, which includes a quarterly journal with pictures, sources, information.

Arkansas Daylily Society: State President - Jerry Martin (356-2754), secretary - Nancy Martin, regional vice president for Arkansas and Louisiana - Tom Flammang. Membership \$5 a year, with two issues of the newsletter, spring and fall. Two meetings: June meeting includes state tour and board meeting. October meeting has plant auction, sale of daylilies, and educational program. Membership in the national group, the American

Hemerocallis Society, is \$18 (single) or \$22 (family), with the *Daylily Journal*.

Arkansas Unit of the Herb Society of America: President - Mary Wohlleb (664-0559) or call Mary Pickering (821-3092). First-year local membership \$15; thereafter national membership for \$45, which includes local and national newsletters and national annual journal, *The Herbarist*. Except in June and December, the group meets at 11:30 a.m. on the third Thursday at the Garden Center. This unit maintains three herb gardens: the medicinal garden at the Arkansas Territorial Restoration, the Garden of Exploration at the School for the Blind, and the Mansion Herbarium at the Governor's Mansion.

Central Arkansas Horticulture Society: Chairperson - Joan Broening (663-1966). Membership \$10 a year, single or couple. Meetings are on the last Tuesday of the month and anyone is welcome. October and February educational meetings are held at the Garden Center in the evening. March through September meetings are garden visits. No meetings are held November through January.

Arkansas Hosta Society: President - Joe Dickens (778-6493 or 758-0814). Meetings are 2 p.m. the second Sunday of the month at Christ Episcopal Church, Capitol and Scott. Trips to hosta gardens across the state are planned. Membership \$3.

Central Arkansas Iris Society: President - Lucie Burley (666-9160). Meetings are at the Garden Center 2 p.m. on the third Sunday every month except January. Activities are Iris show, May garden tour, and July rhizome sale. Group maintains iris bed at State Capitol. Three-dollar local dues include quarterly newsletter. American Iris Society membership (\$18) includes many publications.

Arkansas Mycological Society: President - Jay Justice (794-2669). Annual dues are \$10 (single) or \$15 (family). The Society's mission is to teach identification of Arkan-

— Julia Loyall
sas wild mushrooms. Members meet Saturday mornings every three weeks between mid-March and November to participate in learning-experience forays on public land. Members identify their finds using field guides. Newsletter, *Arkansas Fungi*, accompanies membership. This Society sponsors a mushroom workshop at Pinnacle Mountain State Park in the fall.

Arkansas Native Plant Society:



President - John Pelton (794-1883). Membership is student \$10, regular \$15, family \$25, contributing \$30, life member under 60, \$350, over 60, \$150. There are quarterly editions of a newsletter, general meetings in spring and fall, and field trips during spring, summer, and fall. There are three area chapters, Ozark Area Chapter, Ouachita Area Chapter (Little Rock), and Northeast Area Chapter. Purpose of this society is conservation, preservation, and education regarding Arkansas native plants. The society sponsors scholarships, awards, and grants at college level. Seeds, plants, and used books are auctioned at the fall meetings.

Arkansas Rose Society: President - Carol Shockley, Conway. Past president - Martha Meyer (455-1513). Associate membership \$12.50 a year, \$20 for full membership, which includes American Rose Society membership and monthly newsletter. Meetings at 7 p.m. on the second Monday at Garden Center. Yearly pruning demonstration at State Capitol in February/March and annual Rose Show the first Sunday in October.





MASTER MINUTES

July 1997

Volume 8 / Issue 6

Boehm Birds and Botanical Illustrations Blossom at Decorative Arts Museum

— Alan DuBois, Arkansas Arts Center

“Life-like” and “exquisite detail” are words that best describe this exhibition of porcelain birds and flowers by Edward Marshall Boehm, and botanical illustrations by Arkansas watercolor artist Kate Nessler, at the Arkansas Arts Center Decorative Arts Museum at East 7th and Rocks Streets in Little Rock, through July 13.

From 1949 until his death in 1969, Edward Marshall Boehm created more than 400 different studies of animals and birds that he meticulously reproduced in limited editions from his studios in Trenton, N.J. Working in hard paste porcelain — a difficult medium at best — he was able to perfect and refine the art of porcelain sculpture, to set a standard that competed effectively with European studios, and to establish a place in the history of American ceramics.

Boehm is best known for his studies of native American birds combined with colorful natural flora. For example: a catbird is displayed among hyacinths, Eastern bluebirds are perched on mountain laurel, and green Jays are captured among wild Persimmons. The museum is delighted to show a selection from more than 80 works in its collection, the gift of Rebsamen Interests in 1986.

Boehm was abandoned to an orphanage by his father after his mother died at an early age. He was a boxer in high school, but quit at age 16 to work on a farm. He came to love animals and distinguished himself by raising prize winning livestock. After World War II he worked for a while as a veterinary assis-



tant, before deciding to go out on his own with a porcelain studio in Trenton. His first works were prize-winning cattle and horses, but it was through his birds of America that his work spread far and wide, and became popular.

A favorite story about Boehm is that he was asked to be one of the judges for the Miss America contest. Coming from a background of animal husbandry — champion horses etc., — Boehm proposed that the

See BIRDS, Page 2

In this issue ...

- 2 Plant of the Month: Okra
- 3 July Garden Checklist
- 4 MG News and Notes

Okra Offers Pretty Blossoms and Tasty Pods

— Julia Loyall

In a fabulous garden I admired tall plants branching behind a border of irises and tomatoes. "Hollyhocks!" I thought, but they weren't. That was okra hiding the chain link fence

We think of okra as a truly Southern vegetable, a Colonial one. However, okra is native to Africa, believed to have been grown by the Egyptians since the twelfth century A.D. and called "Bamiyah" by them. Okra is now raised throughout warmer areas of Asia, Africa, the Caribbean, and the United States.

Okra belongs to the mallow family, Malvaceae, species *Abelmoschus esculentus* (*Hibiscus esculentus*). It is related to the cotton plant, hollyhock, and hibiscus. The cream-colored flower is funnel-shaped like the flower of hibiscus. The lobed palmate leaves grow six to 10 inches across. While standard okra can grow six feet tall, new dwarf varieties reach three or four feet.

Uses: The pods provide vitamin A, and the edible leaves contain vitamins A and C. Okra pods are mucilaginous and valuable as a thickening (or sickening!) agent in soups and stews, especially with tomatoes. The African Bantu tribe calls okra "gumbo," which to us is a favorite Louisiana sea-

food stew thickened with okra and served over rice.

Most folks enjoy okra battered and fried, but it's great pickled hot or mild, frozen cooked, stewed, canned or raw off the plant for snacking or salads. To store okra longer than seven to 10 days freeze the pods whole. Freezing reduces exudate ("slime").

The plants will continue to produce until frost if pods are picked at two inches (every day or two). The seeds of large unripe pods can be cooked like peas, made into flour or roasted as a coffee substitute.

The dried pods are useful for flower arrangement.

Cultivation: Okra loves heat and humidity and requires well-drained soil with a pH between 6.0 and 8.0. Don't plant it where tomatoes, peppers, or eggplant were grown the previous season. Wait three years before re-planting in the same spot. Adding organic material to soil encourages nematode-battling fungi.

Seeds are difficult to sprout. Soak overnight in tepid water; freeze or scratch with file or sandpaper to crack the seed coat. Start plants early in peat pots indoors or in hotbeds a month

before nighttime temperatures remain above 55 degrees, which is transplanting time (around April 15-21). Space transplants at 10- to 18-inch intervals in rows two to three feet apart.

For direct seeding, wait until soil temperatures are 68 to 70/75 degrees. Heavy rains can rot seed.

Fertilize with 10-20-10 before planting and every four to six weeks. Mulch three to six inches deep. Cut back plants mid-season for a new fall crop, or better, re-seed in early July.

Home gardeners can hand-pick insect pests such as stink bugs. Aphids can be washed off with a vigorous spray of water.

Varieties: "Clemson Spineless," a variety unusual because it flowers despite 11-hour days, is popular here (and in Egypt). The University of Arkansas varieties "Jade" and "Lee" are three-foot dwarf varieties, suitable for containers. "Emerald's" round pods remain tender longer.

Hate Okra? Try this party treat from iris gardener Valerie Smith. Spread thin slices of deli ham with cream cheese combined with a little blue cheese. Wrap them around trimmed okra pickles. Chill before slicing into bite-size pieces.

Birds, continued from Page 1

participants be judged solely on the basis of conformation. Needless to say, his suggestions were not followed and he was to serve on the jury for only five years.

Accompanying the ceramic works will be 30 botanical illustrations by Kate Nessler of plants native to Arkansas's Baker Prairie. Nessler moved to Arkansas from Chicago more than 16 years ago, and has twice won the London Royal Horticultural Society prize for botanical drawings.

"Her bold, graceful watercolors of familiar flowers and grasses go beyond fidelity and accuracy," writes Dan Weeks for *Traditional Home* magazine, "There is something radiant, confident, innocent, and joyful about her flowers, as though they still enjoy the kind of feelings that prevailed in Eden, before the fall. It's perhaps her ability to perceive and convey this state of grace that causes people to stand mute, and quietly smiling before her paintings."

2 Alan DuBois is curator of the Arkansas Arts Center Decorative Arts Museum.



July Checklist for Gardeners

— Libby Thalheimer

ANNUALS

Deadhead spent blooms to prevent seed production and to ensure continued blooms. Mulch thickly to retain moisture. Water annuals with salt-free club soda (fresh or stale) to brighten and intensify their colors.

VEGETABLES

Keep tomatoes supplied with mulch, lime, calcium, and ample water. Even moisture will help prevent cat-facing, fruit-cracking, and blossom-end rot. Remember that blossom-end rot is a calcium deficiency and can be controlled by keeping moisture levels constant and spraying three times with Stop Rot. Blossom drop will be a problem when daytime temperatures reach into the upper 90s and night temperatures do not fall below 75 degrees. Cucurbits are very susceptible to vine borers now. Some people have had success with placing moth balls around the base of the plants because the adult vine borer is a moth. Later this month, plant broccoli, cabbage, cauliflower, and other fall vegetables. Tomatoes, Irish potatoes, summer squash, Southern peas, and sweet corn can be planted for fall harvest. Check "Vegetable Gardening for Arkansas" for more information. Rabbiteye blueberries are still in season: contact the Extension Office for locations of U-pick berry farms.

ORNAMENTALS AND PERENNIALS

Apply a three-inch layer of mulch around shrubs and in the vegetable garden to keep down weeds. Canna lilies can be attacked by corn earworms: Try *Bacillus thuringiensis* (Bt) as a control. Watch out for powdery mildew and black sooty mold on foliage of plants and shrubs. Spray roses throughout the summer to prevent black spot. Check azaleas for lacebugs.

LAWNS

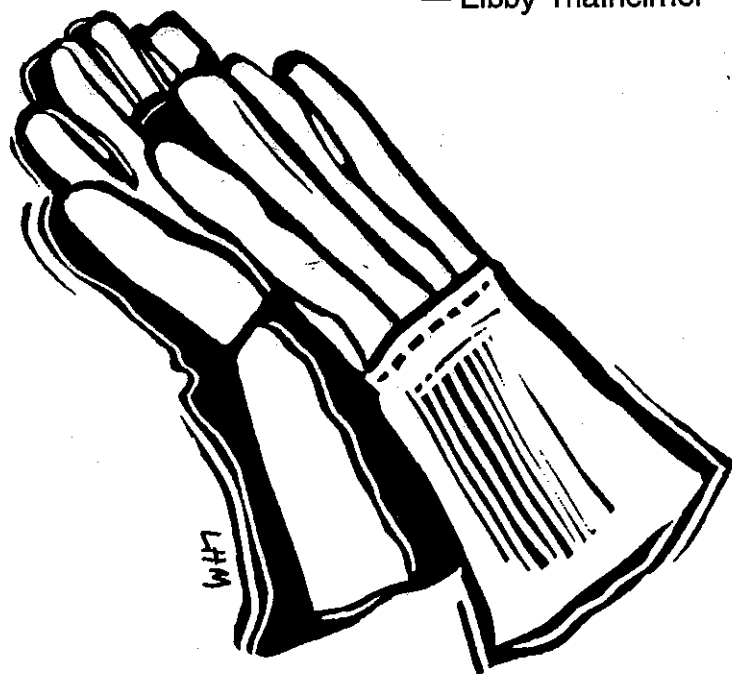
Set the mower blade height at least 2 1/2 inches for summer: Longer grass blades promote deep roots and are more drought and stress tolerant. Longer grass also interferes with weed germination. Aerate the soil: Compacted soil is a common reason for weeds. Consider moss as an alternative to grass for those shady areas with acidic, compacted soil, and thin turf (moss also grows on alkaline soil). Control crabgrass and other grassy weeds in Bermuda and zoysia grass by spraying with MSMA — but be sure to water well before application.

HERBS

Pinch back annual herbs. Thin basil.

WATERING

Water more deeply and less often to combat drought stress. Early morning is the best time to water. Use



soaker hoses where possible to conserve water and to avoid wet foliage which can encourage diseases.

INSECTS

Aphids, cutworms, corn borers, Mexican bean beetles, spotted cucumber beetles, whiteflies, lacebugs, black vine weevils, cinch bugs, Japanese beetles, leaf miners, and slugs will need vigilant control this month. Use insecticidal soap or malathion. Or use Garlic/Pepper Tea as an organic insecticide to control aphids, whiteflies, and other destructive insects: Liquify two bulbs garlic and two hot peppers in a blender with water; Strain pepper juice. Add water to pepper juice to make one gallon of Garlic/Pepper concentrate. Use 1/4 cup concentrate, 2 tablespoons vegetable oil, and water to make one gallon of Garlic/Pepper Tea. Control aphids to control mold, since it grows on their honeydew secretions. Use diatomaceous earth or pyrethrum to control slugs, fleas, cinch bugs, roaches, crickets, and fire ants.

DISEASES

Keep a spraying schedule on roses and red-tipped photinias to control black spot. To control mildew, use a registered fungicide such as Funginex. An organic fungicide to use on black spot, powdery mildew, brown patch, or other fungal problem is made by mixing four teaspoons baking soda, one teaspoon liquid soap or vegetable oil, and one gallon of water: Spray lightly on affected foliage, but try not to spray the soil.

Master Gardener News and Notes

— Laurie Pierce

There will be no Pulaski County Master Gardener general meeting in July or August. The next meeting will be 11:30 a.m. **Sept. 9** at the State Extension Office.

Beth says "Helping Hand" can use any extra produce we have to give for their organization.

The "pink" mark on your Master Minutes mailing label is for anyone who still needs to pay **1997 dues**. Call Ann Ward for more information.

Summer deadline for Master Minutes is still the second Tuesday of each month. Bring a typed copy of your story or a "text only"-formatted computer disk to the Pulaski County Cooperative Extension Office by 4 p.m.

Through August 31, Longwood Gardens in Kennett Square, Pa., will accept applications for its tuition-free **Professional Gardener Training Program**, which will begin in March 1998. The two-year program provides an opportunity for 14 men and women to receive thorough horticultural training, free housing, living expense stipend, and professional development. Other programs at Longwood Gardens include three- to 12-month college internships, high school work experience programs, and a master's degree program in public horticulture administration in conjunction with the University of Delaware. Applicants for the **Professional Gardener Training Program** must have graduated in the upper half of their high school class and have one year of employment in gardening. An open house for the program will be held July 24 and again Aug. 1. Call (610) 388-100 ext. 524 or write Longwood Gardens, P.O. Box 501, Kennett Square, Pa. 19348.

JULY CALENDAR

The Master Gardener tour of Heifer Project International will

be **July 8**. We'll leave Second Presbyterian Church parking lot at 8 a.m., and travel by bus to Heifer Project International. We will learn a lot about Heifer Project and their training center, see sustainable agriculture in practice — including vegetable gardening, and have lunch in their cafeteria. Our tour will be by hay wagon, so dress comfortably. The cost which includes lunch is \$20 per person. Call 340-6650.

The Central Arkansas Iris Society invites all gardeners to its annual Rhizome and Plant Sale 8 a.m.-2 p.m. **July 12** at the Garden Clubs Center of Little Rock, 1501 Kavanaugh Blvd. Call Lucie Burley at 666-9160.

Family fun crafts for children ages 6-12 and their parents are offered **July 12 and Aug. 2** at the Missouri Botanical Garden in St. Louis. Pressed flower creations is the topic for the 1-2:30 p.m. July 12 session. The cost is \$18 per child, the parent is free. The Aug. 2 session focuses on the Iroquois legend of the Three-Sisters Garden — the corn, the bean and the squash — three sisters that must always live together to be happy. The cost is \$15 per child, the parent is free. Call (314) 577-9441.

Ron Mullin R.V.P. will teach a judging school for the Central Arkansas Iris Society 1-4 p.m. **July 19**. The topic will be awards and ballots. The cost is \$5. Call Doris Boyles at 224-0302.

Hands-on, take-home herbal crafts for the holidays are the focus of the sixth annual Christmas in July Herbal Workshop and Luncheon on **July 25** at the Ozark Folk Center State Park in Mountain View. Admission is \$35 and includes supplies and herbal lunch. Call (870) 269-3851.

Vineyard tours, grape stomps, wine, and arts and crafts highlight the 14th annual Grape Fest **July 25-26** in Altus. Free. Call (501) 468-4684.

AUGUST

Learn basic propagation and organic pest control at the Organic Herb Gardening Workshop on **Aug. 1** at the Ozark Folk Center State Park in Mountain View. The cost is \$35. Bring a sharp pocket knife and hand pruners. Call (870) 269-3851.

The 13th annual Wild Orchid Hunt **Aug. 2-3** at Logoly State Park in McNeil features guided trail walks in search of the delicate Crane's Fly orchid and other seasonal wildflowers. Free. Call (870) 695-3561.

SEPTEMBER

Learn basic propagation and organic pest control at the Organic Herb Gardening Workshop on **Sept. 5** at the Ozark Folk Center State Park in Mountain View. The cost is \$35. Bring a sharp pocket knife and hand pruners. Call (870) 269-3851.

1998

Beth says the **1998 Arkansas Flower & Garden Show** is looking for volunteers to help with Garden displays and also to help answer questions about any plants in the displays.

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MASTER MINUTES

August 1997

Volume 8 / Issue 7

Colorful Containers Bring Drama to the Garden

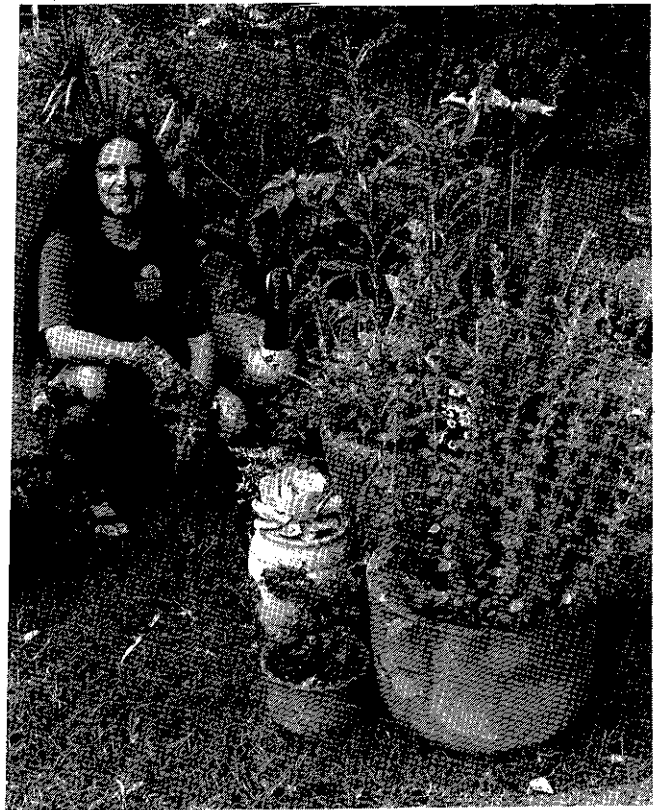
— Helen Hronas

Planting a colorful container garden can elicit “ooo’s” and “ahhs” from observers, but unless some basics are followed, the end result could be “oops!”

According to Mary Evans, a Master Gardener who is employed at a local nursery, the first step is to select the right size pot for the plants you want to grow. For tropicals she suggests moving up just one size at a time for best results; otherwise, you’ll have most of the energy going into root development, and no blooms. For outdoor plants, a 14-inch pot is a good size to begin with. For larger sized pots, urns, or other containers, she suggests using a lightweight plastic pot as a liner. This liner can then be easily moved about or lifted for a good, healthy soaking in a bucket of water as needed. Too, this avoids the collection of salty residue on the large container. Since they absorb water, terra cotta pots cannot be used for african violets, as any leaves touching the pot rim will rot. Terra cotta can also wick moisture out of the soil, but its advantages are that, unlike plastic, it breathes, and it is a timeless classic that goes with everything.

Window boxes are classic attention-getters but must be sturdily built with heavy-duty hardware to support the weight of moist soil and plants. If wood is used, choose rot-resistant wood such as redwood, cedar heart-wood, or pressure-treated pine. Have plenty of openings for draining, as most plants won’t tolerate wet feet. It’s best to have a plastic or metal liner. In fact, if you get two liners, you can prepare the second one to use when the first arrangement gets straggly.

Never use garden soil in containers. It’s best to use sterile potting mix which does not contain soil. Mary mixes her own, using standard potting mix and adding peat and landscape mix (finely ground



Mary Evans mixes texture and color in containers.

bark). You get what you pay for; if you have a nice plant or tropical that will remain in that pot for a long time, it’s good to invest in better grade potting mix. Add more perlite to herbs for good drainage. Always wet potting soil before using it.

Hanging baskets dry out quickly, and Mary is a firm believer in sphagnum moss -- she’s known as the “moss lady” at her nursery. She suggests soaking sphagnum in a bucket of water and lining hanging baskets with it, up over the rim. Transplants can be centered so that the sides of the basket may also be planted by cutting slits in the moss.

See **CONTAINERS**, Page 2

In this issue ...

- 3 MG News and Notes
- 4 Bees and Pollinators
- 5 Book Review: Irrigation
- 6 August Checklist
- 7 What Works!
- 8 Garden Recipes





Bubba admires one of Mary's flower boxes.

Containers, continued from Page 1

Mary protectively wraps individual transplants in wet sphagnum before tucking them into the slits.

In strawberry pots, sterile potting soil should be added up to the first set of holes, then add plants, then more soil up to the next set of holes, etc.

Cocoa mats do not do as well as sphagnum, but if you have the cocoa, and water goes right through the basket, try using an inner liner of coffee filters. Moss is useful also to cover the surface in wall pots or window boxes where the soil tends to run out.

Containers may need to be watered daily during hot weather, especially if they're in hot spots — such as sitting on concrete. With your finger, test each pot individually for dryness. Mary recommends a product called Terra Sorb, which you soak in water and mix with soil. Use it sparingly — a little goes a long way! Follow directions carefully, and whatever you do, don't let it get anywhere near your plumbing or you will have serious problems as it expands and grows!

Nutrients wash out quickly. Low nitrogen and high phosphorous encourage blooming. Mary mixes slow-release osmocote in the top inch or two of her containers — not throughout the pot. Miracle Gro is great for house plants, but if you want lots of blooms, go for Fertilome with the high middle number. Bone meal is organic phosphorous. Blood meal is not recommended for containers, but if you wish to use it, reduce the amount. Jobe's sticks work well for folks who can't remember to fertilize weekly, and they do well in strawberry pots, too, Mary says.

Select plants that are compatible in their water and light requirements. Drought lovers planted with those needing lots of water is a recipe for disaster. Impatiens will like morning sun, but if your container will also receive hot afternoon sun, try something like gomphrena. If in doubt, check it out. If you want lush, immediate results, then crowd your plants a bit. But if you can wait, use fewer plants. A *Southern Living* article suggests using 4-

inch pot plants, planted in three or more concentric rings starting in the center of the pot and working outward — about 18 plants in 16-inch containers. But buying bigger isn't always better. Choose branched plants that are well proportioned, not tall ones that may be root bound. A young, healthy plant is better than an older, stressed one.

Tomatoes are great in pots, as are many vegetables, but don't try putting your entire 6-pack in one 10-inch pot! Use a large container with only one plant, Mary stressed, and use a cage at planting time. Soil must be kept evenly moist. A good potting mixture should be used for best success. Mary likes Stella D'Ora lilies, yucca, herbs, grasses, perennials, and annuals in containers, and says, "Don't be afraid to mix them." Trailing herbs and ivies make nice borders for pots. Massing one kind of plant has a lot of impact, but a mix may be more interesting with variety in color, texture, and form. Combine upright plants with trailing ones in harmonious colors.

Some interesting combinations: Pink mini-roses bordered by white alyssum; white geranium, white verbena, miniature English ivy or Swedish ivy, blue and white salvia, small Marguerite daisies, lavender-white cascading lantana, brachycome, and nierembergia.

For sun: red geraniums, red ivy geraniums, reddish-yellow lantana and small yellow daisies or dahlias with narrow-leaf zinnias.

For shade: pink New Guinea impatiens, blue and white browallias, fuchsia and vinca macilata vine, or caladium and miniature ivy; ornamental kale and sweet alyssum; pink geranium, dusty miller, heliotrope and verbena; purple-leaved wandering jew and ageratum; narrow-leaf zinnia with white petunias and cape plumbago.

For color in window boxes and hanging baskets, Mary highly recommends purple and pink wave petunias with their wonderful, large cascading blooms. Tiny Fantasy petunia is more controlled, is good in pots, and is not invasive. Speaking of petunias, Mary says one of the most often asked questions is when and how to dead-head petunias. She advises not just taking off the blossom, but also the little seed head behind it.

Here's a buying tip from Mary: Watch out for "Yankee Tags" — telling us in Arkansas that a plant will thrive in full sun! Maybe so in Wisconsin, but we know New Guinea impatiens (and many other plants) must have relief from afternoon sun in our climate! Ask the nursery person if in doubt.

Wondering what to do with that lovely, large, expensive, but cracked terra cotta or concrete pot? Try this idea from *Southern Living*: Place the pot on its side several inches deep in soil in a natural setting such as a rock garden. Plant with tiny variegated ivy which will flow out like water from a fountain.

Master Gardener News and Notes

— Laurie Pierce

A NOTE FROM BETH

Dear Pulaski County Master Gardeners,

I wanted to let you know I have received several letters addressed to the Pulaski County Master Gardeners.

One was a thank you from Jeane Hamilton, Jim Hamilton's widow, for the memorial gift to the Arkansas Arts Center in Jim's name. The Arkansas Arts Center also acknowledged our gift in memory of Jim Hamilton.

The North Little Rock History Commission wrote a glowing letter "in appreciation of the tremendous job" the Master Gardeners on the Victorian Cottage Committee have done at the Barth-Hempfling House, a Victorian cottage built in 1886 and located at 507 Main St. in North Little Rock. If you haven't seen this project lately, drop by!

— Beth

AUGUST

"New and Under-used Perennials: Beyond Daisies and Daylilies" is a lecture 7-9 p.m. **Aug. 21** at the Missouri Botanical Garden in St. Louis. Admission is \$20. Call (314) 577-5100.

Greater St. Louis Daylily Society Sale will be held 9 a.m.-5 p.m. **Aug. 24** at the Missouri Botanical Garden. Free with regular admission (\$3, \$1.50 ages 65 and older, children under 12 free). Call (314) 577-5100.

Missouri Botanical Garden's 23rd annual Japanese Festival will be **Aug. 28-Sept. 4** and includes an exhibit of contemporary Japanese art, kabuki, bonsai demonstrations, tea ceremonies, cooking demonstrations, zen lectures, and more. Admission \$6, \$4.50 ages 65 and older, children under 12 free. Call (314) 577-5100.

Through **Aug. 31**, Longwood

Gardens in Kennett Square, Pa., will accept applications for its tuition-free Professional Gardener Training Program, which will begin in March 1998. The two-year program provides an opportunity for 14 men and women to receive thorough horticultural training, free housing, living expense stipend, and professional development. Other programs at Longwood Gardens include three- to 12-month college internships, high school work experience programs, and a master's degree program in public horticulture administration in conjunction with the University of Delaware. Applicants for the **Professional Gardener Training Program** must have graduated in the upper half of their high school class and have one year of employment in gardening. Call (610) 388-100 ext. 524 or write Longwood Gardens, P.O. Box 501, Kennett Square, Pa. 19348.

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There will be no Pulaski County Master Gardener general meeting in August. The next meeting will be 11:30 a.m. **Sept. 9** at the State Extension Office.

The Nominating Committee has put together a slate of officers for consideration at the September Master Gardeners Meeting:

President: Betty Jane Daugherty

First Vice President (First Vice President works with Project Chairpersons): Ruth Smith

Second Vice President (Second

Vice President works with social and travel committee chairpersons and other organizational committees): Martha Jones

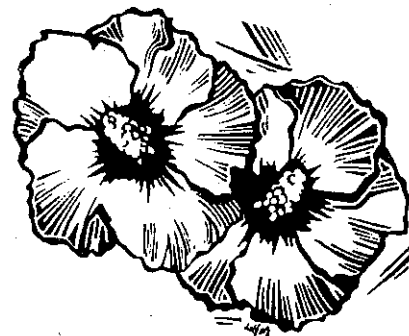
Secretary: Kevin Allis

Treasurer: Patty Wingfield

Arkansas Greenhouse Growers meeting at the University of Arkansas Agricultural Experiment Station Farm will be **Sept. 27**. Registration information and more details to come.

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Busy Bees and Other Pollinators

— Sharon Haley, Benton County Master Gardener

Gardeners across the country are concerned about the decline of our "native" honey bee. Mites, pesticides and bad weather have reduced the feral honey bee population by 75 to 90 percent. Nationally, the potential economic impact of this decline is dramatic. One-third of our food is directly or indirectly dependent on pollination by honey bees. The dollar amount of cultivated crops known to benefit from honey bee pollination is estimated at from \$10 billion to \$30 billion annually. The production of honey, wax, queens, packaged bees, and pollination rental add more than \$200 million to our economy each year. How will the plight of the honey bee affect our gardens?

HONEY BEES

The insects we call honey bees represent 8-10 species in the genus *Apis*, a name from which comes the word for beekeeping (apiculture) and the word for a bee yard (apiary). The species of honey bee commonly found today in Europe, Africa, the Middle East, and the Americas is *Apis Mellifera*, which means honey carrier. There are 24 races of *A. Mellifera*, each of which has different physical and behavioral characteristics such as body color, wing length and susceptibility to disease. Since they are all of the same species, bees from one race can mate with bees from another race, creating even more variation within the honey bee universe.

The true honey bee was not native to the Americas, but was imported to this country by European settlers in the early part of the 16th century. By late in the 19th century, honey bees were regarded as a natural part of the insect world in North America. All of the wild honey bees in American woods today are descendants of the European bees brought by settlers.

European honey bees were also imported to the tropical areas of the new world. However, the introduced honey bees did not survive as well there as in temperate climates. In an attempt to develop a honey bee better suited for the tropical conditions, in 1956 Brazilian researchers imported honey bee queens from Africa and established test colonies. In 1957 some African bee swarms escaped, and their queens hybridized with the more docile European honey bees. About the same time, African honey bee queens were also given to beekeepers.

The offspring of these bees, Africanized honey bees, defended their nest more vigorously, swarmed more often, and were generally better suited for survival in the tropics than European honey bees. Although not easily managed, they do produce honey. Unfortunately, after widely publicized stinging incidents, some media started using the name "killer bees" and gave the public serious misconceptions about Africanized honey bees.

The first colony of Africanized honey bees found in the United States as a result of natural range expansion was reported in 1990. Although both natural expansion and the occasional swarm on ships coming in from South America and Central America are concerns, neither is a major threat to the public or the beekeeping industry. Scientists suggest that the public stay informed about the issues concerning the bees, but not be unduly alarmed.

Other Pollinators

The decline of the honey bee does not mean we will be pollinating by hand. Honey bees are pollinators *par excellence*, but thousands of native species of bees and insects are largely responsible for pollinating such crops as blueberries, cranberries,

and squash. They are also partly responsible for pollinating other crops such as apples, almonds, and cherries.

Like honey bees, bumble bees are social bees, living in large families. Individual bumble bees are excellent pollinators, but only the queen overwinters; and there may be only 40 to 50 workers per colony, compared with 40,000 in a strong honey bee colony.

Most bees, however, are solitary bees. Female solitary bees build their own nests and provide food for only their own offspring. Though less well known than social bees, solitary bees are essential because they pollinate plants ignored by honey bees. The rising star of native pollinators is the blue orchard bee, a handsome metallic-blue creature that can pollinate an apple orchard with an efficiency that would shame even the hardworking honey bee.

In addition to bees, many native insects are effective pollinators. Flies are often pollinators of simple, bowl, or cluster blossoms. Beetles are the primitive pollinators, although they often eat the blossoms as well. Butterflies live entirely on a flower diet. Moths pollinate while hovering in front of flowers, rather than perching like bees do.

WHAT WE CAN DO

Whether or not the honey bee makes a speedy comeback, its plight serves as a warning. Home gardeners have little defense against invading mites or bad weather or even the migration of Africanized honey bees. Pesticide use, however, is entirely in our control. Here are some things you can do to limit pesticide use:

Wait and see: A couple of less than perfect plants may not be a garden disaster. Perhaps only a wandering insect or two enjoyed a good meal.

Try a non-toxic solution

See BEES, Page 5

"Drip Irrigation for Every Landscape and All Climates

"Drip Irrigation for Every Landscape and All Climates: Helping your garden flourish while conserving water," by Robert Kourik. Metamorphic Press, 1992; soft cover \$15.00, 118 pp.

Have you wondered what would be involved in setting up a drip irrigation system on your property? What advantages do drip systems offer? What are the best types and most reliable brands? Robert Kourik's book has become *the* manual for homeowners installing their own systems.

Kourik learned the hard way what not to do. He wrote this book to save others from some of that unnecessary expense and frustration. In his words, "this is a book about how to put in a drip irrigation system that's simple to install, efficient, and virtually invisible to the eye."

He describes how to design and put together drip systems for shrubs and trees, vegetable gardens, flower gardens, orchards, and patio container gardens. He shows how to use drip emitters, soaker hoses, and other devices.

For most applications he recommends in-line, pressure-compensating emitters. They offer the "best mix of efficiency, ease of installation, and resistance to clogging and leaking... (and) provide consistent rates of irrigation without regard to slope or length." He uses spaghetti tubing only for watering pots and hanging baskets.

This is a how-to manual, not a book for leisure reading. A novice must work to become familiar with the terms and equipment. Kourik starts by showing how to set up a simple system. He walks the reader carefully through each step, often adding helpful advice.

Later chapters describe building more complex

— book review by Jan Gauntt
systems. Math is explained for topics like calculating the water needs of plants and comparing the water deliveries of different assemblies. In spite of the technical subject matter, Kourik uses a light touch (and sometimes too-corny humor) to prevent readers from becoming cross-eyed from information overload. A complete glossary and index aid comprehension. Excellent diagrams with all parts labeled accompany the text throughout.

Kourik states that assembling a drip system is well within the abilities of most gardeners. His book is available by special order from local bookstores, or by mail from Gardener's Supply Company and Territorial Seed Company.



BEES, continued from Page 5

first: When pests become a problem, a strong blast of water, hand-picking, or simply waiting a day or two will often solve a pest problem.

Identify the pest responsible: Before choosing a solution, know what the worst-case damage scenario could be, and consider all options for control.

Use pesticides only as last resort: Use them only when truly threatened by pests. Follow directions carefully, and be sure the pesticide you use is effective for the problem you face.

Spray early in the morning or late in the evening:

That is when fewer blossoms are open and pollinators are less active.

In addition to limiting pesticide use, we can design our gardens to the benefit of our pollination partners. Choose a variety of landscape plants that will provide blooms from spring through fall and the throughout the day and night. Consider native species, as they encourage our native pollinators. Include a variety of plant types in your garden — ground covers, annuals, perennials, shrubs, and trees. Flowering herbs attract a variety of pollinators. Learn about the habitat of the pollinators you want to attract, and reproduce it as closely

as possible.

Spread the Word

Take every opportunity to talk to friends and neighbors about our honey bees and other pollinators. The more gardens to include nectar or pollen producing plants, the more significant the results will be.

The beauty and productivity of our gardens depend on pollination. Preservation of our pollinators will ensure that future generations know the meaning of "busy as a bee."

Sharon Haley is the Editor of The Green Thumb Print, the newsletter of the Benton County Master Gardeners.

August Checklist for Gardeners

— Libby Thalheimer

LAWNS

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 the soil. Water deeply to encourage deep roots that will sustain the turf during drought.

WATER

Check container plants daily and water as needed. Water deeply twice a week or use a soaker hose or drip irrigation to reduce runoff and evaporation. Mulch well.

ANNUALS

Cut back leggy plants and fertilize. You can replant a second crop of zinnias, marigolds, and several other bedding plants if you pull the diseased and spent summer annuals. Some of the easier to grow late summer "filler plants" include cosmos (rapid grower, heat lover, many colors), sanvitalia (daisy-type flowers, tolerates heat and drought), zinnia linearis (rugged heat lover, blooms constantly, fine-textured leaves), and melampodium (star-shaped, golden flowers, takes heat, blooms all season).

PERENNIALS

If day lilies didn't bloom well, it's probably because of over-crowding. Dig up entire clump and remove soil from the roots to expose the crown. Pull plants apart by hand or split with a sharp knife. Replant new divisions 12 to 18 inches apart. 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.

BULBS

Plant fall-blooming bulbs now: crocus, colchicums, and spider lilies. Divide iris this month through September if your plants haven't bloomed well in the past few years.

ORNAMENTALS

Avoid pruning azaleas, forsythia, and other spring-flowering shrubs now because they are forming flower buds for next spring. Give them a light application of fertilizer.

If your roses are vulnerable to leaf diseases, continue regular sprays of Funginex or Benlate to prevent infection. Follow label directions exactly. If weather is dry, water roses deeply once per week and fertilize monthly with granular rose food or liquid formulation as recommended on the label. Prune shrub roses to remove errant branches and direct new growth. Do not prune climbers at this time. Mulch to insulate rose roots.

HERBS

If you get started now, you can have an indoor herb

garden this winter. Divide mint, sweet marjoram, and oregano growing in the garden. Cut back divisions, pot them, and place in a sunny window. Pot chives as well, but leave them outside for a month or until frost to encourage fresh shoots when you bring them indoors. Sow seeds of dwarf basil and parsley directly into pots.

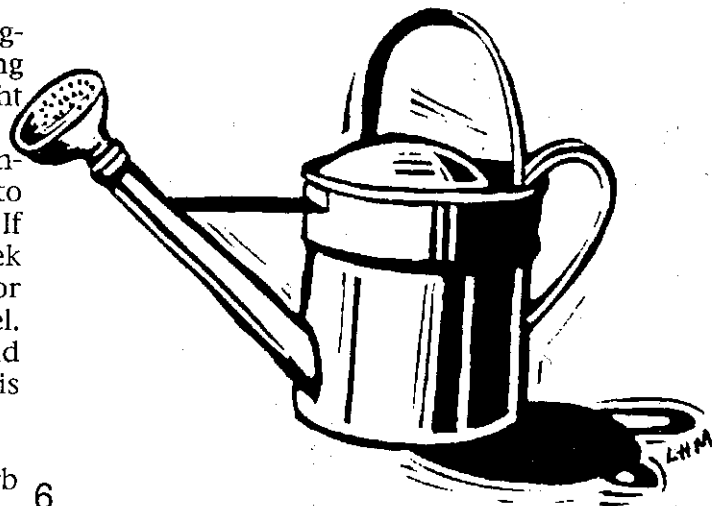
Although rosemary is evergreen, it may be killed by cold temperatures. Thyme is hardy and evergreen, so leave it in the garden.

INSECTS

You may begin to notice white 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.

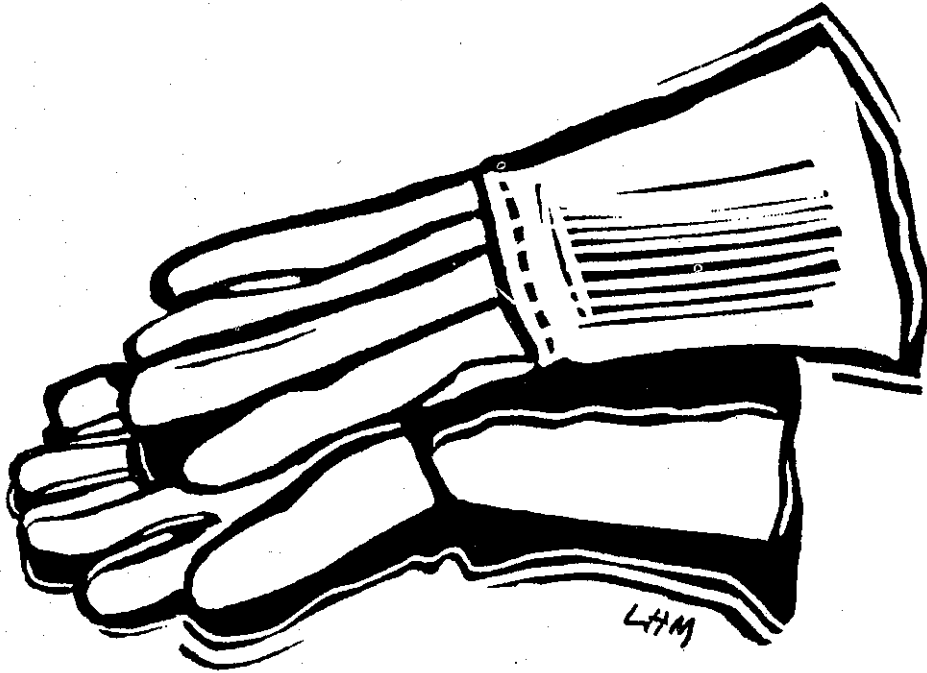
PESTICIDES

When using any kind of fungicide 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. Now is a good time to use herbicides to get rid of grassy weeds as well as poison ivy and honeysuckle. Carefully follow label directions. Water the surrounding desirable plants well before you use an herbicide. Since poison ivy and honeysuckle are perennials, applying Roundup now can keep them from storing nutrients for winter and the chance of their surviving until spring decreases.



What Works!

— Salah Brummett



FENDING OFF THE VARMINTS

The following are home remedies that are part scientific and part old-wives tales, but guaranteed to work. Try them and give us a report. Do always remember, though, to re-apply all temporary methods after rainfall or watering with a sprinkler.

To repel deer, and sometimes we really do want to, spray a diluted solution of 18 or 20 eggs in about five gallons of water on plants and bushes that are serving as an all-you-can-eat-buffet for Bambi. People won't smell it, but the deer will and nobody gets hurt!

For the remote areas visited (and nibbled on) by deer, hang those little hotel bars of perfumed soap--in their wrappers--from bushes or fences at three-foot intervals about four feet from the ground, where a deer's nose should be.

If you decided that a fence is the only solution, it will have to be at least eight feet high or the deer can jump over it.

This one is too late for now, but if you do have critters, you

can plan ahead for next year. Before planting, line the garden bed with wire mesh. The half-inch size is best.

Hot red or black pepper strewn on soil near plants will send animals hopping off on irritated feet. It also irritates their mouths and eyes without actually harming them.

The source on this one says it "cannot really be considered polite behavior", but if you're desperate, you may want to try it. Spread used cat-litter around the base of plants — except in vegetable/edible gardens (for obvious reasons!).

TOMATO TIP

You may already know this, but Epsom salts provide a quick mineral supply for tomatoes.

OUTDOOR LIGHTING

Did anyone see the cute (and cheap) outdoor lighting ideas in the "Good Things" column in the July/August *Martha Stewart Living*?

Flowerpot votives combine small terra-cotta pots painted

inside and on the top rim with silver acrylic paint with votive candles. The silver paint reflects the candle's flame for a glittering display.

Tin lanterns feature a punched-nail design on cans once destined for recycling: Wash, peel off labels, fill with water, and freeze cans overnight (the ice helps the cans hold their shape when the design is punched with nails); wrap cans with strips of masking tape then sketch a design like "X"s or diamonds; lightly pound nails into the can and add two holes opposite of each other near the top for the handle; form 16 gauge wire into a handle with a small "U" on each end to hang the lantern; place votive candle inside.

Laurie Pierce says she wants to make the tin lanterns in all kinds of sizes — from small, narrow tomato paste tins to Campbell's soup size to one-pound peach cans — then sit them atop the railing of her deck along with other tin accessories, lanterns, and planters. The flicker of votives and tea candles adds a friendly glow when friends gather for evening drinks on the deck or patio.

SLUG SALOON

I've discovered that slugs are really cheap drunks. They won't even try Guinness ale (all I had on hand) so I guess the stale cheap stuff is what they deserve anyway. One Master Gardener reports that she used left-over "non-alcoholic beer" from a party with great success. The slugs "sizzle" just like in regular beer.

That's all for the dog days of August. It's hot, and no one is writing, calling, or sending in garden tips, crafts, or ideas — I'm running out! Contact the extension office and tell us WHAT WORKS! for you in the heat of summer.

Recipes for a Bountiful Summer Garden

— Irene Wassell, *Arkansas Democrat-Gazette*

Summer time and the gardens are growing. One of the most prolific vegetables, the cucumber, often produces so many it's a challenge to use all of them. In anticipation of a bountiful cucumber harvest, a reader from McGehee requested a recipe for 14-day sweet pickles.

Several Alley Kats met the request for the pickle recipe. The first is from JoAnn Vanderburg of Alexander, who writes: "I gave my sister Carol a quart of these lime pickles and she just went on about how good and crispy they are."

Overnight Old-South Cucumber Lime Pickles

- 7 pounds cucumbers, sliced cross-wise**
- 1 cup pickling lime**
- 2 gallons water**
- 8 cups distilled white vinegar**
- 8 cups sugar**
- 1 tablespoon salt**
- 2 teaspoons mixed pickling spices**

Wash cucumbers. Mix pickling lime and water in a crockery or enamelware container. Do not use aluminum. Add cucumbers and soak in water and lime mixture for 12 hours or overnight.

Remove cucumber slices from lime water. Discard the lime water. Rinse cucumbers 3 times in fresh cold water. Soak 3 hours in fresh ice water.

In a large pan, combine vinegar, sugar, salt, and mixed pickling spices. Bring to a low boil, and stirring until sugar dissolves. Remove syrup from heat and add sliced cucumbers. Soak 5 to 6 hours or overnight.

Boil cucumber slices in syrup 35 minutes.

Fill sterilized jars with hot slices. Pour hot syrup over the slices, leaving 1/2 inch head space. Cap and seal each jar when filled.

Process in a boiling water bath — 10 minutes for pints, 15 minutes for quarts.

Martha Coon of North Little Rock shares this lengthier recipe which takes several days to complete.

14-Day Sweet Pickles

- 3 1/2 quarts (4 pounds) pickling cucumbers, about 2 inches in length**
- 1 cup coarse pickling salt**
- 2 quarts boiling water**
- 1/2 teaspoon powdered alum**

- 5 cups vinegar**
- 4 1/2 cups sugar, divided use**
- 1 1/2 teaspoons celery seeds**
- 4 (2-inch) sticks cinnamon**

Wash cucumbers carefully; cut in half lengthwise and place in a stone crock, glass, pottery, or enamel-lined pan.

Prepare brine by dissolving salt in boiling water; pour over cucumbers. Weight cucumbers down with a plate almost as large as the crock and lay a stone or paraffined brick (not marble or limestone) on plate to keep cucumbers under the brine. Let stand 1 week.

Day 8: drain; pour 2 quarts fresh boiling water over cucumbers. Let stand 24 hours. Day 9: drain; pour 2 quarts fresh boiling water mixed with alum over cucumbers. Let stand 24 hours. Day 10: drain; pour 2 quarts fresh boiling water over cucumbers. Let stand 24 hours. Day 11: drain. Combine vinegar, 3 cups of the sugar, the celery seeds and cinnamon sticks and heat to boiling. Pour over cucumbers.

For the next three days, drain, retaining liquid. Reheat this liquid each morning, adding 1/2 cup of the sugar each time. After the last heating, on the 14th day, pack pickles into hot, sterilized jars. Remove cinnamon sticks; pour boiling hot liquid over pickles and seal at once. Process in boiling water bath for 5 minutes.

Makes 5 to 6 pints.

Another crop that produces in abundance is zucchini. Here are two recipes using the versatile vegetable in unusual ways. They are shared by Jeanette Heritz of Little Rock.

Zucchini Bread

- 3 cups all-purpose flour**
- 1 1/2 cups sugar**
- 1 cup chopped walnuts**
- 4 1/2 teaspoons baking powder**
- 1 teaspoon salt**
- 4 eggs**
- 2/3 cup salad oil**

- 2 cups grated zucchini**
- 2 teaspoons grated lemon peel**

Heat oven to 350 degrees. Grease 2 (8 1/2-by-4 1/2-inch) loaf pans.

In a large bowl, using a fork, mix flour, sugar, walnuts, baking powder and salt.

In a medium bowl, beat eggs slightly. Stir in salad oil, zucchini, and lemon peel. Stir liquid mixture into flour mixture just until flour is moistened. Spread evenly in

pan. Bake 1 hour. Cool in pans on wire racks 10 minutes; remove from pans to cool completely. Serve warm or cold.

Zucchini Cake

- 2 1/2 cups all-purpose flour**
- 2 teaspoons baking powder**
- 1 teaspoon baking soda**
- 1 teaspoon salt**
- 2 teaspoons cinnamon**
- 1/2 teaspoon cloves**
- 3 eggs**
- 1/2 cup cooking oil**
- 1 1/3 cups sugar**
- 1/2 cup orange juice**
- 1 teaspoon almond extract**
- 1 1/2 cups shredded zucchini (about 2 medium)**

Orange Icing (recipe follows)

In a large bowl, mix flour, baking powder, soda, salt, cinnamon, and cloves; set aside.

In a separate bowl, beat eggs with a whisk. Stir in oil, sugar, orange juice, almond extract and zucchini; mix well. Add to flour mixture, stirring just to moisten. Pour into greased pan or pans (see following table for pan sizes and baking times). Bake in a 350-degree oven as specified for type of pan or until pick inserted in center comes out clean.

If using a tube pan, cool cake in pan on a rack for 15 minutes, then invert on rack to cool completely. For all other size pans, cool in pan on a rack. Store in air-tight container. Will keep 4 to 5 days. When ready to serve, spread with Orange Icing.

Orange Icing: In a small bowl, beat together 2 tablespoons softened butter OR margarine, 3 cups confectioners' sugar, 1/4 cup orange juice and 2 teaspoons lemon juice. Makes about 1 1/2 cups icing.

Pan sizes and baking times:

- 10-cup bundt pan — 55 to 60 minutes.
- 13-by-9-by-2-inch baking pan — 35 to 40 minutes.
- 4 (6-by-3-inch) foil pans — about 40 minutes.
- 2 (8-by-4-by-2 1/2-inch) loaf pans — 40 to 50 minutes.
- 2 (8- or 9-inch) square baking pans — about 35 minutes.
- Cupcakes — 20 to 25 minutes.

Irene Wassell is the Food Editor of the Arkansas Democrat-Gazette. This article was published in her "Idea Alley" column July 16.



MASTER MINUTES

September 1997

Volume 8 / Issue 8

Cutting Gardens Bring Color to Every Corner

— Helen Hronas

In the world of real estate investing, we're advised that the three most important things to consider are "Location, Location, Location!" Dana Nixon of Nixon Flower Farm says that in the gardening world, the three most vital things are "Mulch, Mulch, Mulch!"

For her large commercial cutting garden, Dana's favorites for longevity in our wilting hot midsummers are: a new celosia called Pampas Plume which comes in red, burgundy, yellow, and apricot, but is not yet available to the general public; Blue Horizon ageratum, (which, unlike the common ageratum, grows to a height of 2-3 feet); and zinnias of various kinds, all of which she grows from seed. She also likes the wild, branching kind of sunflowers, the long-stemmed Discovery and Gold Coin series of marigolds, and cleome, which comes in white, rose, and purple. Other standbys are gomphrena, gillardia, rudbeckia, Shasta daisy, monarda, and Bouncing Bet, a fragrant bloom which looks much like phlox. Nixon recommends planting several varieties of garden phlox which will give you constant bloom all summer. The perennial *Verbena Bonariensis* which grows to a height of 3-4 feet is another favorite — the one Allen Smith calls "space plant." Dana plants several varieties of basil and a wetlands plant, Lythrum, which she obtained years ago before it was banned in boggy areas. It has not been invasive at her farm. Pure orange tithonia is more robust than the yellow variety, Dana has found, and she harvests crepe myrtles and butterfly



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bush for her bouquets, as well.

Lady in red is a more airy-looking salvia than the standard, and Agastache is a tall plant with a licorice fragrance that can be found in

pink, white, or purple. Fresh hydrangeas make wonderful arrangements, but they must be picked late at night or very early in the morning.

For the remainder of the year, Dana likes Sweet William (Hollandia Mix, a biennial that blooms 3-4 years), the Digitalis varieties, the Seashells Mixture of Cosmos, Dame's Rocket Hesperis (white and

Flowers, continued from Page 1

purple), snapdragons, Achillea (yarrow), Centaurea, campanula, penstemon, scabiosa, and florist dill — which is not edible but is more flowery than the herb.

In fall, there are mums, asters, larkspur, goldenrod (cultivated varieties, not the wild ones), and *Salvia Leucantha*, which reaches a height of five feet. Wild, spiky grasses and wild mints also make appearances in her customers' orders.

Everlasting selections for dried arrangements include Sweet Annie, amaranthus, Fall Salvia (*Salvia Leucantha*), grasses, reeds, and alliums.

Dana recommends that plants be cut in the early morning. Bouquets should last a week or more if properly prepared and tended. Foliage should be stripped to the water line and the stem clipped again when brought indoors. If they are to stand in water for more than an hour, she uses commercial nursery preservative water such as Floral Life or Crystal Life. Re-cut stems each time you change the water, which should be changed daily if the arrangement is outdoors or in a warm place, or every-other-day if in an air conditioned location. The more you cut your flowers, the more blooms you will have. Dana cuts her flowers twice a week. This

does a good job of keeping them deadheaded.

Mulching is the key to good blooms and healthy plants, as it conserves water and helps the soil. Dana uses plenty of compost and her soil is so fertile that she does not need frequent fertilizing. High phosphorus Miracle Gro is sometimes used. Osmocote is used for pots.

For insect pests, Dana sprays with Ivory liquid at the rate of five tablespoons to a gallon of water. Occasionally, she uses insecticidal soap. For Japanese beetles and hard to kill Harlequin bugs (which kill cleome outright), stronger measures are required. She mixes diazanon, malathion, and sevin in a hopefully fatal "cocktail." Even this doesn't eradicate Harlequin bugs, but at least slows them down. For the occasional fungus, she uses liquid copper or commercial fungicide, but these are not needed frequently because the plants and mulched and stay healthy.

Dana, who is a former Master Gardener, operates with her husband the 120-acre Nixon Flower Farm in Jacksonville, delivering seasonal flowers by subscription to office and homes. Their flowers can be purchased at the Farmer's Market on Saturdays and at The Fresh Approach, 1424 N. Shackelford Road.

Master Gardener News and Notes

— Laurie Pierce

SEPTEMBER

The September Pulaski County Master Gardener general meeting will held at 11:30 a.m. **Sept. 9** at the State Extension Office. The Nominating Committee has put together a slate of officers for consideration at the meeting: President, Betty Jane Daugherty; First Vice President, Ruth Smith; Second Vice President, Martha Jones; Secretary, Kevin Allis; Treasurer, Patty Wingfield.

Stop by the River Market the the mornings of **Sept. 13 and 27** to see Pulaski County Master Gardeners in action.

Learn about home wine making, stomp some grapes, and tour the winery **Sept. 21** at the 18th annual Arkansas Championship Grape Stomp and Cowie Wine Fest in Paris; call (501) 963-3990.

Kay Kellogg and Millie Bowman will serve a variety of herbal teas and discuss the use of herbs at the second annual Herbal Tea

Party **Sept. 21** at Prairie Grove Battlefield State Park. Free; call (501) 846-2990.

The Arkansas Greenhouse Growers will meet at the University of Arkansas Agricultural Experiment Station Farm on **Sept. 27**. Registration information and more details to come.

OCTOBER

A state-wide Master Gardener Meeting will be held **Oct. 12-14** in Fayetteville. A deposit of \$45 is due by Sept. 30. Call Janet or Jean at the state office, 671-2000.

Experienced Master Gardeners are welcome to join the New Master Gardener Class for any of the training sessions which will be held from 8:30 a.m. -4:00 p.m. each of the following **Wednesdays** at the University of Arkansas Cooperative Extension state office: **Oct. 8** Basic Plant Science, Soils, and Pesticide Safety; **Oct. 15** Fruit Crops, Attracting Wild-

life to Your Landscape; **Oct. 22** Vegetables, Water Gardens (at Green Thumb Nursery with Hoot Gibson); **Oct. 29** Ornamentals; **Nov. 5** Proper Pruning and Planting, Fire Ants, Environmentally Friendly Landscapes; **Nov. 12** Turf (morning session only).

If you plan to eat lunch please let Mrs. McKinney or Beth know by noon on the Monday before. Lunch will be a sandwich boxed lunch from Jason's Deli, cost is \$5.50.

1998

Beth says the **1998 Arkansas Flower & Garden Show** is looking for volunteers to help with garden displays and also to help answer questions about any plants in the displays.

Start saving for the **English Garden Tour** May 13-22. Call Janet or Jean at the state office, 371-2000.

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September Checklist for Gardeners

— Libby Thalheimer

LAWNS

Fertilize warm and cool season grasses this month. St. Augustine, Bermuda, and Zoysia need one more feeding of low nitrogen fertilizer to be healthy and cold-tolerant during the winter. Cool season grass such as fescue need regular or higher nitrogen applications (20-30 percent) in a slow release form, such as urea-formaldehyde, methylene urea, sulfur-coated urea, or IBDU. Remember, urea is not a slow release fertilizer.

ANNUALS

When it cools off, rejuvenate tired annuals by removing faded flowers and cutting back leggy stems. Feed with liquid 20-20-20 fertilizer. If they are too far gone, pull them out and replace with new ones for fall. Although marigolds are usually considered summer annuals, they are becoming a popular alternative to mums and may actually bloom longer.

PERENNIALS

Mums and asters can be purchased and planted now. Plant several that bloom at different times during the season. It's not too late to dig, divide, and replant iris if they are crowded. Each two to four-inch division should have a part of the rhizome, some roots, and soil. Cut foliage to six inches and replant the rhizomes no more than two inches deep in well-prepared soil. You can still divide over crowded daylilies, too. Carefully dig, lift, and break apart. Replant and apply 5-10-5 fertilizer. Cone-flowers, yarrow, pinks, lamb's ear, and many spreading or clumping perennials can also be divided.

BULBS

Fall-flowering bulbs should be set out immediately, or these eager bulbs may flower unnoticed in a paper bag. Good choices include colchicums, crocuses, baby cyclamen, and white swamp lilies. For a fragrant surprise in late autumn, plant paperwhite narcissus outdoors now — they will bloom in six to 12 weeks.

Spring-flowering bulbs should arrive at garden centers by mid-September. Look for firm bulbs with no mold. For best selection, buy early and store in a cool, dry place until time to plant (late September through November).

VEGETABLES

When summer heat and drought have eased, the first half of September is an ideal time to plant lettuce, radishes, mustard, turnips, spinach, and kale for fall harvest. Cress matures in two to three weeks, mustard four to five weeks, and radishes three to four weeks. Remove the green tops when harvesting carrots, parsnips, turnip, radishes, etc. and leave them on top of the soil to make "green manure."

ORNAMENTALS

Do not prune spring-blooming plants now. Avoid heavy pruning of other ornaments, or they won't have time to harden off before the first frost. Light pruning of evergreens can be done any time. Fertilize roses for the last time about six weeks before frost.

HERBS

Plant perennial herbs now to fill bare spots in beds. You can also set out cloves and garlic for harvest in late spring and early summer. Allow four to six inches between plants. Clip off the flower stalk when it appears to divert energy to the underground bulb.

HOUSEPLANTS

Bring houseplants and tropicals inside when temperatures are predicted to fall below 55 degrees, but check for pests and take care of them before they come inside. Cut poinsettias back to desired height and leave three or four leaves per stem. For December bloom, poinsettias must have total darkness from 5 p.m. to 8 a.m. and bright light from 8 a.m. to 5 p.m. Continue to fertilize until Dec. 1.

PESTICIDES

Benlate can be used to control powdery mildew. Malathion or Orthene

See **CHECKLIST** Page 4

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Plant Mixture of the Month: Mesclun

— Julia Loyall

Why shop and chop to have that healthful daily green salad? Why not have tender baby greens growing close to your kitchen door, pesticide-free, ready for you to gather into the bowl?

Have this salad miracle soon by planting mesclun seeds by your back door.

What's mesclun? It's traditionally a Provençal salad mixture of young leaves of chervil, arugula, lettuce, and endive, greens typically grown in southern France. The name "mesclun" means "mixture." Current American versions use these and other leafy vegetables we grow: mustard, kale, cultivated purslane, chicory, cress, parsley, fennel, escarole, dandelions, or Asian vegetables. Seeds are blended to suit many tastes, some peppery, some mild. Milder blends might include all four types of lettuces — Bibb, Romaine, oakleaf, and crisphead. Arugula, mustard, chicory, and cress make

a tangy mix.

The National Garden Bureau recommends separate planting of mild and peppery seed mixtures in wide rows so you can combine them as you prefer.

Seed packets and catalog pictures help you shop for seeds. Besides *Mesclun*, look for labels like *Spring Salad*, *Green Salad Mix*, *Stir-Fry Greens*, *Provençal*, *Nicoise*, or *Nicoise*, or *Piquant Mix*. All Blends will be colorful and tasty.

Mesclun does best in rich loamy soil with a pH of 6.0 to 6.5 and grows well in sun or partial shade. It also makes an attractive border and will grow among ornamentals or in containers.

Work an inch of fine organic fertilizer or compost into the top two or three inches of soil and moisten. Shake the packet and sow in rows or scatter the seed, cover with one-quarter inch of fine soil or compost, and keep moist but not soggy. Germination

time varies with temperature. Add a fine compost side dressing when the true leaves are growing.

Thinning is not needed. Harvest with scissors when plants are two inches tall. For continued growth, never let them reach six inches in height. Cut just above the crown.

Rinse the leaves and pat dry. A light vinaigrette dressing completes your mesclun salad, or toss leaves in a little oil in your stir-fry.

For early spring planting, soil temperature two to three inches down should be between 32-40 degrees. Cold frames and grow lights can extend the season. Seeds will not germinate when night temperatures are 80 degrees or above. Consistent harvesting will continue regrowth of plants and prevent bolting.

Mesclun is tastiest and nutritionally best when freshly picked. These little plants are low in calories, but rich in vitamins A and C and potassium.

Harvesting Sunflowers

— Susan K. Beebe, Cooperative Extension Agent Saratoga County, New York

The 1997 growing season has been difficult for many plants, but one crop that did manage to make it through the heat and drought in the region was the sunflower. Now, as the fall is fast approaching, it is time to begin the harvest of these sunflowers.

First, check the flower head for maturity. Signs such as the florets in the center of the flower shrivelling, the back of flower head turning yellow, or a drooping head all tell you that it is time to cut the head for harvest. When cutting, it is always best to leave about a foot of the stalk attached to the head. Hang the flower head in a warm, dry, well-

ventilated location to fully dry the head and finish ripening the seeds. To help collect the seeds as the head dries, you may wish to place a cheesecloth or a paper bag with holes for ventilation over the head.

Another method of drying sunflowers can occur in the field. The cheesecloth or nylon netting around the flower head can let it dry naturally on the stalk. As the seeds mature, the head will droop more, and the seeds will be collected in the cloth.

All the seeds will not drop naturally from the flower head. Gently rub the head to release the seeds remaining after drying. Store seeds in a mesh bag or container with good ventilation; if stored in a sealed container they may spoil. Make sure that your storage area is dry and free of rodents or insects.

Checklist, continued from Page 3

can be sprayed to control aphids — and will control sooty mold on crape myrtles also. Make sure plants have plenty of moisture before using any pesticide to avoid damage to the plant. Now is a good time to use an herbicide to eliminate grassy weeds, poison ivy, and honeysuckle. Apply Roundup to prevent them from storing nutrients for winter and to reduce their chances of survival until the spring.

News and Notes, continued from Page 2
ETC.

What Tree Is That?, a pocket guide for identifying trees, is available free-of-charge from the National Arbor Day Foundation. The 72-page booklet identifies 135 different trees found in the eastern and central United States. To obtain the free tree guide, send your name and address to *What Tree Is That?*, the National Arbor Day Foundation, 100 Arbor Ave., Nebraska City, Neb. 68410.



MASTER MINUTES

October 1997

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Exotic Blooms Draw Orchid Fans

— Helen Hronas

Our impression of orchids may be that they are delicate, fragile beauties, and, therefore, must be very difficult to grow. But according to Pulaski County Master Gardener Jim Wilks, they are fun to grow — and it's so easy to get hooked on them.

"All it takes is lots of patience and the growing conditions compatible to the specific variety you wish to grow," says Jim, who, along his wife and Master Gardener Dorothy, specializes in cattleya and dendrobium orchids which have similar cultural needs. You don't even need a greenhouse if you can create the mini-climate required — humidity, temperature, and light — similar to that for house plants. In spring Jim moves his orchids out to the deep shade of a large tree where they are protected from strong, direct sunlight. Well before frost, he brings them back indoors to the greenhouse he designed and built.

Basically there are two types of orchids — terrestrial, which are potted in fine potting medium, and epiphytic, which draw most of the moisture they need from the air and can be found growing on tree trunks in the tropics. While terrestrials are watered like most house plants, epiphytics' spongy roots need aeration, will rot if the potting medium is not allowed to dry out slightly between waterings, and grow best in mixtures of fir mulch with sphagnum peat and perlite. Extra humidity can be supplied with a tray of moist pebbles.

Your orchids will let you know about their preferences for light. If it's too intense, the leaves will turn yellow and may develop burn spots.



If the light is inadequate, leaves will become unnaturally dark green, growth will be stunted, and flowers won't form. If you don't have a window with good light, you can grow most orchids placed about six inches under four 40-watt fluorescent tubes turned on about 16 hours a day. If you don't have much space, you can grow the miniatures, which won't outgrow a four inch pot!

Mike Saar, President of the Arkansas Orchid Society, likes Stearn's Miracid or any well-balanced water-soluble fertilizer, applied every other week. He uses a plain water flush in place of every fourth application of fertilizer to avoid a buildup. If you prefer using a long-lasting fertilizer, Mike advises using no more than the three-month formulation because you are locked in and cannot vary the amount of fertilizer if a change is needed.

Clay pots are best for orchids that prefer dryer roots, while plastic pots are best for those that like more moisture. Orchids won't tolerate wet

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feet. As for pot size, orchids favor being pot bound, but the smaller pots tend to dry out quickly. Orchids can grow under light conditions ranging from full sun to full shade, but east and south window sunlight works best for most. For those who would like to get a taste of the orchid-growing hobby, Mike recommends the charming white, pink, or yellow Moth orchid (*phalaenopsis*) often used in bridal bouquets. Another to try is the exotic dark colored or pastel Lady Slipper (*paphiopedilum*). The Moth orchid grows in deep shade outdoors and must not be exposed to temperatures lower than 65-70 degrees. Paphiopedilum orchids grow best in relatively low light, east, south, or west windows (if not overheated), and with a minimum temperature tolerance of 60-65 degrees. Lady Slipper has mottled foliage and likes to be moist, but not wet.

Supplies for orchid growing can be found at WalMart, HQ, and local nurseries. The orchids themselves can be purchased there also, but they are usually found in full bloom and unlikely to bloom again for a year or so, which can be disappointing. (That's where the patience comes in! With a little TLC, they will display beautiful flowers on a regular schedule. But they are not a lovely plant when they are not in bloom.) Mike advises that before you purchase any orchid, you look around your home to consider exactly where you can grow it successfully, and then choose a variety that will work under the conditions you have or can easily create.

"Wildflowers of Arkansas" by Carl Hunter includes an excellent segment on wild orchids, and there is also a book by Carl Slaughter on native orchids of Arkansas, which may be of interest to Master Gardeners wanting to try-out native or wild orchids. (Master Gardeners, of course, are urged never to har-

vest wild orchids or other native plants which may be endangered species.)

A good place to obtain more ideas about orchids will be at the Arkansas Orchid Society annual auction to be held this year at the North Little Rock Community Center on Willow Street at 1:30 p.m., Oct. 5. Many orchids available there are contributed by members and will be moderately priced, although not all of them! Some sought-after types will be quite pricey. Some cultural information will also be available at the auction. The Orchid Society meets monthly at Christ Episcopal Church, 509 S. Scott St., and welcomes newcomers. See Jim and Dorothy Wilks for more information.

It's been said that once you purchase your first orchid and experience the fun and ease of growing them, you won't want to stop. If you can grow African violets, you can just as well grow orchids. They, indeed, are one of the most irresistible of plants we can grow in our homes.

Trading Post

Laura Lasiter (374-6595 after 5:30 p.m.) has cleome seeds and cypress vine seeds.

Hilda Boger (225-0434) has toad lilies.

Suzanne O'Donoghue (661-9658) wants bamboo.

Marge Van Egmond (234-7632) wants flower seeds.

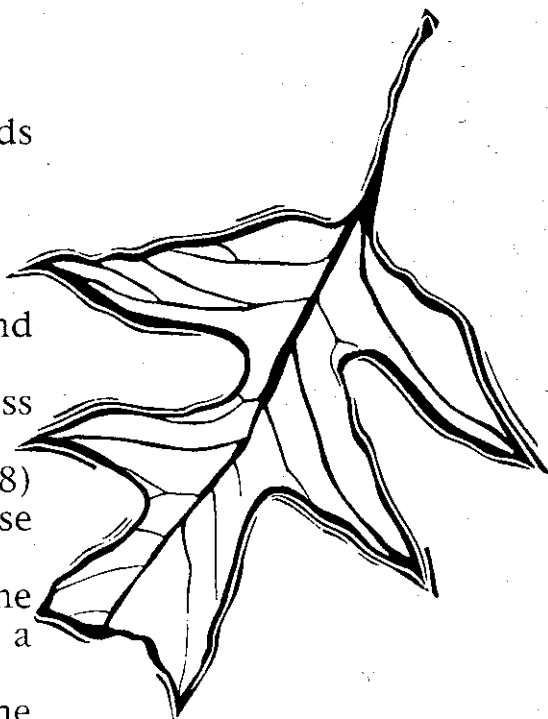
Dorothy Veirs (225-2106) has French hollyhock seeds and double rose hollyhock seeds.

Julia Dame (664-1410) has bamboo and wants cypress vine seeds.

Lois Corley and the Greenhouse Committee (666-2498) want seeds of unusual plants for the spring greenhouse sale.

Mary Ann Francis (225-5384) has hyacinth beans. She also has a tall (about nine feet) ficus tree that needs a home.

Rita Johnson (664-3008) has unusual sweet-pea vine seeds.



Master Gardener News and Notes

NOTES FROM BETH

We're looking forward to a great year. Our new officers are: **Betty Jane Daugherty**, President; **Connie Ruth Smith**, 1st Vice President; **Martha Jones**, 2nd Vice President; **Kevin Allis**, Treasurer; **Patty Wingfield**, Secretary.

Thanks to last year's officers for a great 1996-97! **David Dodson**, President; **Ann Cooper**, Treasurer, **Ann Ward**, Secretary; **Betty Jane Daugherty**, 1st Vice President; **Connie Ruth Smith**, 2nd Vice President.

The meeting dates for October and November are not the regular second Tuesday of the month. The October meeting is Oct. 21 (changed because of state meeting). November is Nov. 18 (changed because of Veterans' Day).

Check your volunteer hours enclosed in the September Master Minutes and report any errors.

The State Administrative Building needs a committee of six to eight people to maintain the flower beds at the front of the building.

Sign up to be a mentor for the new Master Gardener class.

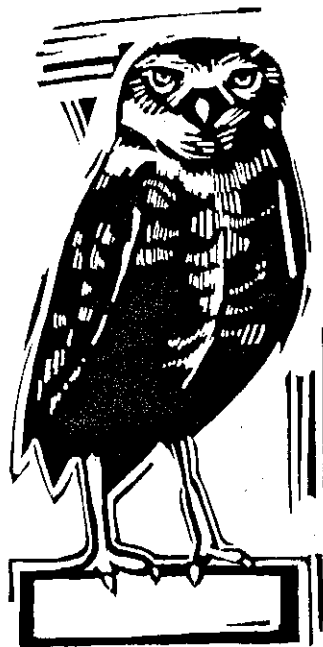
Thanks to all the Master Gardeners for my expense-paid trip to California for the National Master Gardener Meeting.

—Beth

OCTOBER

Now that summer's over, the Victorian Cottage Committee plans a work day every Monday. Call Marie Flickinger at 834-2338 or 834-3217.

The Central Arkansas Rose Society presents its 29th annual Rose Show 1:30-5 p.m. Oct. 5 at University Mall. Call Linda or Bruce Dantzler at 771-0844.



Experienced Master Gardeners are welcome to join the New Master Gardener Class for the training sessions which will be held from 8:30 a.m. - 4:00 p.m. Wednesdays beginning Oct. 8 at the University of Arkansas Cooperative Extension state office. Contact Beth for a list of dates and topics. If you want to eat lunch with the class, please let Mrs. McKinney or Beth know by noon on the Monday before. Lunch will be a sandwich boxed lunch from Jason's Deli — cost is \$5.50.

"Extravaganza," the annual sale of the Greater Little Rock Council of Garden Clubs, will be 9 a.m. - 4 p.m. Oct. 11 at the Little Rock Garden Center, 1501 Kavanaugh Blvd. The sale features plants, crafts, baked goods, "trash or treasure," and a \$4 lunch served from 11:30 a.m. - 1 p.m. Call 663-7515.

Phoebe Stephens and the City of Little Rock request the help of Pulaski County Master Gardeners for its city green house and War Memorial Park project. Call 371-4770.

1998

The Master Gardener Booth

— Ann Ward and Laurie Pierce

at the Flower & Garden Show needs people to sign up for this committee. Pulaski County Master Gardeners can also sign up to help with individual garden displays.

There are 10 places left on the May 13-22 English Garden Tour. Call Janet or Jean at the state office, 371-2000.

Next year the Pulaski County Master Gardeners will host the state meeting in Little Rock. Pat Green will be in charge of organizing the event, which probably will be the first Thursday and Friday in October.

ETC.

"What Tree Is That?," a pocket guide for identifying trees, is available free-of-charge from the National Arbor Day Foundation. The 72-page booklet identifies 135 different trees found in the eastern and central United States. To obtain the free tree guide, send your name and address to What Tree Is That?, the National Arbor Day Foundation, 100 Arbor Ave., Nebraska City, Neb. 68410.

MASTER MINUTES STAFF 1997

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“How to Grow More Vegetables”

— book review by Jan Gauntt

“How to Grow More Vegetables Than You Ever Thought Possible on Less Land Than You Can Imagine,” by John Jeavons. Ten Speed Press, 1995. Softcover \$16.95, 201 pp.

How little land for how many vegetables? Would you believe that a garden the size of a small front yard can provide a family of four with ALL their fresh vegetables for an entire year? After several years of building up the soil by Jeavons' methods, a 20-by-40-foot plot can produce these yields and more. Furthermore, the vegetables are “produced organically while maintaining soil nutrients . . . with a minimum of water and daily care needed.” Jeavons claims that people have been getting results like these in all kinds of soils and climates for the past 25 years

Jeavons is head of Ecology Action, a California-based non-profit organization. This group has been developing and testing techniques for sustainable small-scale food production, and educating people around the world to use them. “How to Grow More Vegetables” has become a classic learning text for their biointensive gardening techniques. First published in 1974, it has been published in seven different languages and used in 108 countries. This fifth edition is completely revised and expanded. It incorporates on-going research from test projects around the globe, and now emphasizes sustaining soil fertility organically.

If you are a serious vegetable gardener, are concerned about world hunger, or want to learn more about preparing superb soil for your garden beds,



Jeavons presents a lot of information in a readable, enthusiastic style.

Biointensive gardening grew out of Biodynamic/French intensive methods. Basic aspects include deep soil preparation (yes, that means an initial double-digging), addition of composted plant materials, close plant spacing in wide beds, and growth of compost crops to recycle back into the soil. Growing soil in a way that is sustainable, explains Jeavons, is the key to solving hunger problems in many parts of the globe.

Biointensive gardening differs in several ways from the Rodale methods of organic gardening. For instance, adding compost is essential for both, but biointensive composting uses vegetable matter almost exclusively, with little or no manure. Power tillers are not used; hand-digging better creates the desired soil structure.

Biointensive miniautre farming can support families on less land than is needed for mechanized row agriculture. Jeavons says that biointensive mini-farms routinely produce two to six times more vegetables per acre than modern agriculture, and use a tiny fraction of the out-of-pocket costs to grow them. Homesteaders and third

world mini-farm families can grow enough plants on small plots to provide all their own food, seeds, vegetable compost to renew the soil, and some income as well.

Hobby gardeners here may also enjoy benefits. Biointensive methods promise to grow plants that are so healthy that they resist diseases, attract fewer bugs, and require less work and less water. More plants can be grown in a given area. Though the initial double-digging takes a major effort, after that biointensive claims to be “lazy-bed” gardening.

This book details how to start a 100-square-foot biodynamic mini-garden. A four-year expansion plan adds more area and more vegetables, fruits, herbs, and flowers each year.

Chapters in the book include “Bed Preparation,” “Compost,” “Seed Propagation,” and “Companion Planting.” Extensive tables tell how much seed to buy, when to plant and transplant, how to space plantings, and estimated yields. Information is also included for fruit, grain, fodder, green manure, fiber, and other crops. A very extensive bibliography arranged by topics offers Master Gardeners many more directions for learning.

Even if you can easily afford to buy flavorful fresh vegetables, you might like to try some of these techniques as a learning experience. Jeavons ends by saying “I hope each person who reads this book will try at least one small, three-foot-by-three-foot Biointensive growing bed. You should find the experience fun and exciting beyond your wildest expectations!”

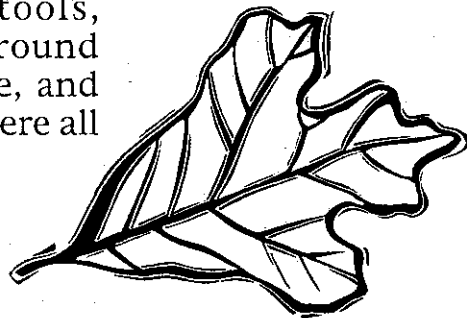
What Works!

— Shalah Brummett

We can finally say honestly that glorious fall is here! I am always sad because I miss the long days and abundant blossoms of summer, but change is good, and I remind myself that even Mother Nature needs a rest, too. With that in mind, we turn to clearing up, cleaning out, and preparing for what comes next, whether it is letting a space lie fallow or planting pansies.

TOOL TIME

If you missed Heloise recently on the "Today" show, she offers a new way to clean gardening hand tools. Take a bucket or comparably-sized flower pot and fill with sand. Then mix in either recycled motor oil or mineral oil — just enough to be good and damp, but not slushy. Next, insert your tools, spreading around the oil a little, and leave them there all winter!



FIRE EXTINGUISHER

Julia Dame says that if you are canning peppers, avoid burning your hands or eyes by immediately rinsing pepper-oily hands with white vinegar. (Let's have a big hand for Julia sending us this tip and hope it encourages more of you to do the same!)

SCAT CAT

An anonymous Master Gardener scatters citrus peel atop the soil to keep pesky cats from digging in beds. Does this also work for dogs?

ALL-AMERICANS

Beth Phelps sends this bulletin about three new All-America Plant Selections Win-

ners that have been tested across North America, and each has proven its superior performance. They are Victorian Rose impatiens, Sweet Dani basil, and Bright Lights Swiss chard. They will be available both in garden centers and through mail order catalogs.



Victorian Rose is an impatiens with semi-double blooms and more of them, making it often covered with blossoms. It performs best in a shady garden and, like its cousins, needs little care in the garden. With enough water, it will reward you with a long growing season.

Sweet Dani is an aromatic herb that can be used in the kitchen with fish entrees or anywhere where a touch allows its lemon scent to burst free. It should do well in Arkansas because it needs warm temperatures for rapid growth. It will reach more than two feet high with flower spikes late in the season and can be cut back many times with hearty regrowth.

The last is called **Bright Lights** and is a Swiss chard with stems of yellow, gold, orange, pink, violet, or striped — in addition to the standard red or white. It also has a milder flavor. Because it is widely adapted to growing conditions, young plants may tolerate light frost. This is one that can be planted now for harvest in four to five weeks.

What Works! is a forum for gardening, design and craft ideas. Do you have an inspiration, comment, or question? Contact us at **WHAT WORKS!** c/o Beth Phelps, Pulaski County Extension Office, 2901 W. Roosevelt Rd. Little Rock, AR 72204; fax 240-6669; or e-mail Pulaski@uaexsun.uaex.edu.

October Checklist for Gardeners

— Libby Thalheimer

LAWNS

Keep the leaves raked! They block the sun (which is needed as growth slows before going dormant) from the turf grass. If you have been fertilizing your lawn this year, you do not need to use a winterizer fertilizer. This type of fertilizer has no nitrogen, only phosphorus and potash. However, if your lawn is severely damaged, or the lawn (such as St. Augustine) was stressed this year, or if you have not been fertilizing regularly, or if you have new sod, you do need winterizer fertilizer.

ANNUALS

It is time to plant pansies. Place 1 teaspoon of a slow-release fertilizer around each plant. Wait until hard freezes are forecast to mulch heavily. Remove faded blooms for continued flowering. Ornamental cabbage, kale, petunias, and marigolds will continue to do well until freezing weather. Other flowering plants that will tolerate a light to moderate freeze include Snapdragon, Viola, and Calendula, Larkspur, Lobelia, Nierembergia, Poppies, Scabiosa, Stock, Sweet Alyssum, and Sweet Peas.

PERENNIALS

Divide perennials to restore vigor to old and crowded plants. Phlox, Coreopsis, Black-eyed Susan, and Cone flowers need to be divided every three to four years. Fall is also a good time to plant new perennials!

BULBS

Dig tender bulbs such as caladiums and gladioli. Gently remove any soil clinging to the bulb. After drying the bulbs, store in a cool, dark, well-ventilated area. Old potato or onion sacks work well as a storage container. When selecting spring-flowering bulbs, remember — the larger the bulb, the bigger the plant will be. With bulbs, you usually get what you pay for; so, if it sounds too good to be true, it probably is. Bulbs can be planted anytime from October through January. If you must store your bulbs before planting, keep them in the refrigerator, preferably away from fruits and vegetables.

VEGETABLES

Check the vegetable garden for cabbage loopers. They will be found on cabbage, broccoli, cauliflower, or collards. These green caterpillars can be easily controlled using any *Bacillus thuringiensis* (Bt) product. Plant fast-maturing vegetables such as garden cress, turnip greens, and radishes. Spinach, rape, turnips, kale, and winter peas can also be planted. To keep soils from drying out or washing away during winter, plant a cover crop now in unused parts of the vegetable or cut-flower garden. Legumes such as hairy vetch, crimson clover, and sweet clover trap nitrogen from the air, which then becomes available in subsequent crops after the legumes are turned under. A woody stem, hard rind, and deep orange



color indicate that pumpkins are ready for harvest. Cut (don't pull) them from the vine, and leave a three-inch piece of stem attached. Let them cure in the sun for about a week; then store in a cool dry place.

ORNAMENTALS

Fall is a good time to plant or transplant trees and shrubs. If you are planting in a bed, it is a good idea to amend the soil in the whole bed. Soil amendments such as peat moss, compost, or other organic material added to the backfill for individual planting holes has been shown to be, at best, of no benefit and, at worst, detrimental to the establishment of trees and shrubs.

HERBS

Plant cilantro (or coriander, its sweet spicy seeds). Cilantro will remain green through winter, producing flowers and seeds in spring. Sow seeds on the surface of well-prepared soil, and pat them into place. Do not cover. They will germinate in about two weeks. Transplanting is difficult because the plants have tap roots; sow seeds where you want the plants to grow.

HOUSE PLANTS

Prepare your house plants and tropical plants to be moved inside for the winter. Tropical plants should be moved in before nighttime temperatures reach 45 degrees to prevent any damage. Remember to check for pests before doing so.

INSECTS AND DISEASES

Don't worry about fall webworms. They look unsightly but do little damage to trees. As the temperatures cool, horticultural oil should be sprayed to control scale on fruit trees, camellias, or other ornamental shrubs. Control white peach scale with oil such as Volck; use Cygon on ornamentals. Treat fruit trees again with a dormant oil after fall leaf drop. Note: Horticultural oil also helps control leaf spot on red-tipped photinia. Clean out old mulch before adding new mulch to prevent fungal diseases next spring.

Gardening on the Internet

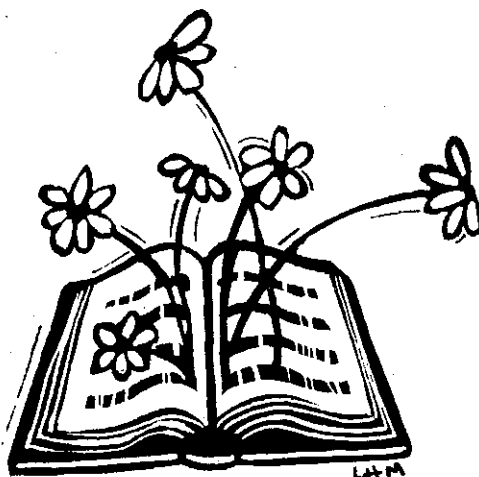
Not that many years ago, futurists talked about how modern day workers would counterbalance their "high-tech, low-touch" lives at work with "high-touch, low-tech" activities such as gardening. The opportunity to be involved in an activity such as gardening, where people are personally involved in touching, feeling, planning, smelling, and creating a whole, would be a natural balance to the impersonal use of computers and being involved in only a small part of a project. The futurists were right — gardening continues to be one of America's favorite activities. But it is no surprise that the "high-tech" world of the computer Internet has met up with the "high-touch" world of gardening. There are a growing number of gardening information sites on the Internet that can provide answers to gardening questions, display color illustrations of plants, help with garden planning, and sell you a wide variety of garden supplies and tools.

If you aren't familiar with the Internet, also called the World Wide Web, you may want to check into what it offers. Basically, the Web provides a contact or link to sites or places that provide information or market goods. It is all done over telephone lines, so "calling" a site is much like placing a phone call. Once you are linked to the Internet through a computer, sort of like getting dial tone, you can type in an "address" (something like a phone number — website addresses start with <http://>) that will connect you to that site. If at home or work you don't have access to a computer that will connect you with the Internet, ask at your local library or call a computer store for nearby locations where you can pay a fee to use a computer that is linked to the Internet.

There are more and more opportunities opening up to use "public" computers. And don't forget that you may have a friend who has access to the Web and will show you how to explore gardening sites.

FINDING INFORMATION

Unless you have visited a site before, chances are you don't know how to reach a certain place or company, and chances are you don't even now what's out there.



You are not alone, and that is why there are marvelous things called "search engines." These sites are starting points for finding places to go when you don't know a lot about what you are looking for.

Two popular search engines are Yahoo (<http://www.yahoo.com>) and WebCrawler (<http://www.webcrawler.com>). Once you contact these sites, you can type in the word *garden* or *gardening* in the Search Box provided, and a whole list of gardening sites will pop up.

If you have a particular company that you want to contact, type in the company's name and as much other address information as you have, such as city and state. Depending on how many

— National Garden Bureau

other companies have a similar name, and depending on whether or not any of them have a web site, the name you are looking for may come up quickly.

Even if you aren't new to searching on the Web, you will find it can be a guessing game. Sometimes you have to try a number of words or combinations of words to narrow your search. On Yahoo, for instance, a search on the word *garden* produced 193 category matches and 2,335 site matches. Narrowing the search to *gardening* produced nine categories and 395 matches.

SITES TO VISIT

Obviously, with thousands of possible sites to visit, you could spend many hours in front of a computer testing them all. While you may eventually want to visit as many as you can, the National Garden Bureau has put together a list of web sites for its members and others that can help you get started. Some are loaded with photos and graphics that can take a little while to appear on your computer screen, while others are straightforward and simple, but by no means less useful.

The following companies offer gardening advice, seed and other products for sale via their web sites. Many offer on-line requests for catalogs.

W. Atlee Burpee Co. (<http://www.garden.burpee.com>) Order a catalog, order seeds, plants, and supplies, and hook up with other sites.

The Cook's Garden (<http://www.cooksgarden.com>) Order a catalog, seeds, and supplies for the American kitchen garden.

Advance Seed Co./Ferry Morse (<http://www.trine.com/gardennet/ferrymorse/>) Order a catalog, join a garden club, read articles, find seed suppliers.

Flowers of Tomorrow (<http://>

www.flowerseed.com) Specializes in wildflower and "heirloom" flower and vegetable seeds. Get advice. Link to other sites.

Harris Seeds (<http://www.trine.com/gardennet/harriseseeds>) Get information on Harris; order a catalog.

Johnny's Selected Seeds (<http://www.johnnyseeds.com>) Order a catalog, order flower, herb, and vegetable seeds, get growing advice, see photos of some varieties.

Nichols Garden Nursery (<http://www.pacificharbor.com/Nichols/>) Features herbs and rare seeds. Order a catalog, seeds and supplies — plus get recipes and a

garden tip of the week.

Park Seed Co. (<http://www.parkseed.com>) Order seeds and supplies, e-mail customer service, growing advice, and links to other sites.

Territorial Seed Co. (<http://www.territorial-seed.com>) Order a catalog, order flower, vegetable, and herb seeds, and garden supplies.

Vesey's Seed Co. (<http://www.veseys.com>) Order a catalog, order flower and vegetable seeds, read gardening tips, link to other sites.

The Virtual Garden (<http://www.pathfinder.com/vg>) Magazine-type articles, regional growing tips, lots of photos, and a plant selection guide.

Garden Escape (<http://www.garden.com>) An on-line magazine. Order seeds, plants, and supplies; read gardening articles, get advice, and design your garden.

GardenWeb (<http://www.gardenweb.com>) Read articles, link to other sites, exchange questions and answers on a bulletin board.

Garden Gate (<http://www.prairienet.org/ag/garden/homepage.htm>) Helpful articles, links to other sites, garden "tours" via photos and text.

The Neighborhood's Gardening Launch Pad (<http://www.tpoint.net/neighbor>) Links, links, and more links to all types of sites of interest to gardeners.

Pulaski County Master Gardener Committee Chairs

ART&CENTER

Jane Watkins - chair - 666-5656
Irene Davis - co-chair - 663-5678

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Jim and Dorothy Wilks - co-chair - 225-0524

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Kathy Scheibner - chair - 225-0478

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Anne Jarrard - co-chair - 375-3903
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Anita Chamberlin - 758-1959

TRAVEL COMMITTEE

Martha Jones - 663-2373





MASTER MINUTES

November 1997

Volume 8 / Issue 10

Everlastings Bring Bountiful Harvest

— Helen Hronas

Harvest time brings a bounty of materials, most for free, that can be used to produce lovely original creations for your home or for gifts. A second thoughtful look around our gardens, fields, and roadsides may reveal interesting seed pods, grasses, and blooms that will give us an astounding array of usable materials.

"Flowers That Last Forever — Growing, Harvesting, and Preserving" is a fascinating book by Betty E. M. Jacobs (available at the Extension office) which identifies suitable plants for drying, meticulously describes various methods of preservation, and gives directions for projects such as three-dimensional flower and leaf pictures, wreaths, garlands, bouquets, candle wreaths, flower and cone trees, wall vases, and plaques.

But Master Gardeners Nancy and Duncan Porter, owners of a rustic gift shop, Twigs, 24708 Pleasant Grove Cemetery Road (off Arkansas 10 about a block before the Bread Basket Cafe), look at drying all kinds of plants in a very relaxed way. This is in keeping with their wonderfully casual "salt box" country home that blends into the wooded hillside just above the apple orchard and shop which is open on weekends.

At Twigs, one can discover antiques and collectibles (finds of daughter, Diana, who lives in Florida) that lend themselves to the



dry plant arrangements Nancy likes to make with things she grows, collects, and occasionally purchases. Nancy prefers drying things naturally, and her home, back porch, and shop are filled with a myriad of plants in various stages of preparation.

Most plants do best if hung upside down to dry in a cool, dark, dry place, with some air circulation. An electric fan can be used to hurry things up a bit. Hang them singly or gathered in small bunches with a rubber band (to accommodate shrinkage); then hook the bunches to clothes hangers or clothesline with clothespins or wire twist ties. The exception is hydrangea, which should be dried upright in about an inch of water which is allowed to evaporate from the container. Fluorescent lights or sunlight should be avoided because they cause fading. In

In this issue ...

- 3 Master Gardener News and Notes
- 4 November Checklist

Jacobs' book, some have had success with drying in a gas oven with pilot light only — no heat — or with the microwave used very briefly.

Nancy collects wild flowers, grasses, seed pods and seed heads, acorns, veggies, fruits, and herbs around their woodlands, gardens, and roadsides. From these she creates interesting topiaries, wreaths, strings of peppers called "Ristras," and country posies and arrangements for her shop. Imagine a painted wooden checkerboard with sweetgum balls and large acorns for checkers, displayed on the weathered planks of an outdoor coffee table! For the holidays, how about a round, red gomphrena topiary or a cone-shaped one covered in neat rows of acorns.

She shared with us her discovery of two-for-one day at a local florist, where every Wednesday afternoon discounted flowers are available — and they dry beautifully. "Larkspur is by far the prettiest flower I grow," Nancy says, "and when dried, its purple, pink, and white blossoms look just as pretty as when fresh." Other favorites for drying are Fairy Pink rosebuds and Rio Samba, a sturdy hybrid tea which opens yellow and turns to gorgeous shades of pink. She picks these just when buds begin to open. Gomphrena, cock-

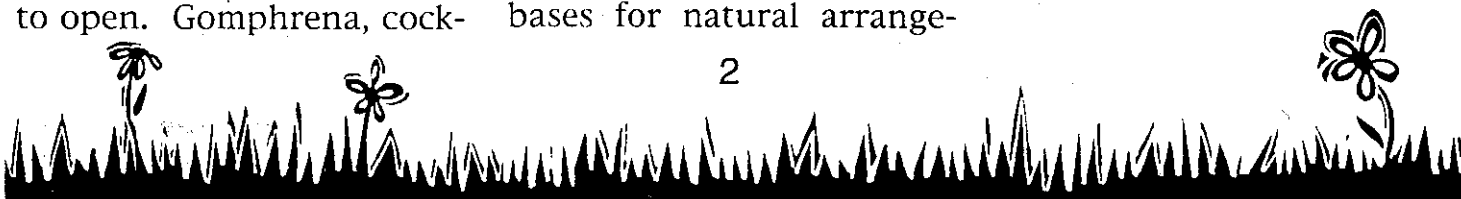
scomb, goldenrod, yarrow, and artemesia do well also and should be cut at their peak. Hydrangea, however, can be picked after its prime when it actually becomes a bit dry on the plant but before losing its color. Some people have success with picking them sooner, so don't limit yourself — try it at different stages to find what works for you.

Grasses can be inserted upright into a tall weighted juice can with chicken wire across the top. Some will bend a little as they dry, giving a natural look. Dried okra pods are truly striking in arrangements, as are the alliums. Colorful autumn leaves with interesting shapes can be pressed between paper towels in an old phone book with bricks or more books placed on top. When completely dry, arrange the leaves nicely and glue them to a mat or cloth-covered cardboard; frame it for a lovely botanical collage. Be sure the frame is sealed air-tight. Lightly applied Krylon clear plastic spray, clear acrylic spray, or regular hold hair spray will help preserve your collections. If your plants appear too faded for your taste, you may resort to craft spray or food coloring to brighten them.

Other tips from both Nancy and Jacobs: Driftwood or horizontal tree trunk slices from craft stores make good bases for natural arrange-

ments. Many unattractive objects can be disguised with Spanish moss. Dried flower heads can be wired or taped to use in arrangements that call for taller stems, or hollow flower stems or drinking straws can be used to hold several blooms with floral tape. Secure your foam cube in the bottom of your container before starting the arrangement. Don't use oasis or the very hard foam — medium is best for fragile dry stems. Old apothecary jars or other antique glass containers can be filled with small dried arrangements and the tops sealed unobtrusively with clear food wrap and a few drops of glue. For a china flower look, try spraying dried flowers with a clear plastic oil-based resin such as urethane. Hold can close to flowers and give them a very light spray. Allow to dry completely and repeat three or four times. This gives a delicate china look that will last and last.

Nancy also recommends Martha Stewart's wreath book for great ideas. Nancy's philosophy seems to be: Just make it easy on yourself when it comes to drying plant life. Silica and desiccants work well, she says, but they're lots of work. Air dried materials will be preserved longer than those dried in desiccants; the trick is to dry them as quickly as possible.



Master Gardener News and Notes

The November Pulaski County Master Gardener meeting will be Nov. 18 because of Veterans' Day.

Do you have a plant that has outgrown your house? One solution is to donate to the Central Arkansas Library System Main Branch in the River Market District. The new library is beautiful, but lovely plants of all types will make it even more so. There is room for plants up to 9 feet tall; there are four south-facing floor-to-ceiling bay windows and many medium- and low-light areas. Cynthia Frost, Pulaski County Master Gardener and library employee, promises to take care of all donated plants. Call her at 918-3000 or 375-8137 with questions about donations. Cynthia can use the library van to pick up the plants and will give you a receipt letter for tax purposes.

Thank you to Lakewood Gardens for donating ivy to Victorian Cottage.

Pulaski County Master Gardener Five-Year Pins have been awarded to Marian Berry, Anthony Black, Boon-Nam Blackwell, Hilda Boger, Pam Bredlow, Bonnie Cargile, Wini Carter, Jim Christian, Bettye Jane Daugherty, Margaret Fizer, Kay Groce, Dorothy Hobbs, Lena Holland, Wincie Hughes, Jo Ann Jernigan, Roger Kordsmeier, Melba Lemond, Sandra Miller, Norma Parker, Alice Preston, Leslie Scott, Marge Van Egmond, and Mildred Walton.

NOVEMBER

Brides, flower girls, and bridesmaids will be featured at three herbal weddings staged by the Arkansas unit of the Herb Society of America from 1 to 3:30



p.m. Nov. 8 at St. James United Methodist Church, 321 Pleasant Valley Drive. Wedding themes include Christmas, formal, and garden, and reception tables will be decorated to match the themes. The event is a benefit for the Herb Society's three public herb gardens in Little Rock. Admission: \$15. Call (501) 221-3144 or (501) 868-4517.

Learn hands-on techniques from professional decorators to create swags, bows, wreaths, and floral arrangements at the sixth annual Christmas Designers' Workshop at Old Washington Historic State Park on Nov. 15. The workshop will be repeated Nov. 22. Admission includes lunch: \$20. Call (870) 983-2684.

Herbal holiday snacks, homemade greeting cards, and organic ornaments are the focus of the Herbal Elves Holiday Workshop and Luncheon 9:30 a.m. to 4:30 p.m. on Nov. 15 at the Ozark Folk Center State Park, Mountain View. Bring a glue gun, scissors, hand pruners, and a sharp knife. Admission includes craft materials and lunch: \$40. Register by Nov. 10. Call (870) 269-3851.

A forest of decorated trees, from traditional to trendy, highlight the 21st annual Festival of

— Laurie Pierce
Trees Nov. 22 to 25 at the Statehouse Convention Center. The festival also includes home decorating seminars, Christmas bazaar, children's activities, and a silent auction. Admission: \$5, \$3 children. Call Dianne Brady at 660-7612.

Fabulous wreaths, trees, and traditional holiday decorations created by floral artists will be on display Nov. 25-Jan. 2 at the Missouri Botanical Garden Holiday Exhibit. Admission: \$3, \$1.50 for adults 65 and older, ages 12 and younger free. Call (314) 577-9400.

1998

The Pulaski County Master Gardener Booth Committee at the Flower & Garden Show needs volunteers. Pulaski County Master Gardeners can also sign up to help with individual garden displays.

Next year the Pulaski County Master Gardeners will host the state meeting in Little Rock. Pat Green will be in charge of organizing the even, which probably will be held the first Thursday and Friday in October.

MASTER MINUTES STAFF 1997

Editor	Nan Jo Coleman
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Photography	Kelly Quinn
Staff Writers	Shalah Brummett
	Jan Gaunt
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	Annette Hurley
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	Paul McDonnell
	Laurie Pierce
	Libby Thalheimer
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	Judy White
	Frances Young
Data Entry	Hilda Baldrige
Layout	Laurie Pierce
Labels	Claude Epperson
Miscellaneous	Beverly Brown
	Dawn Jackson
	Janée Miller

November Checklist for Gardeners

— Libby Thalheimer

LAWNS

Keep the leaves raked and off your lawn. Or instead of raking and blowing leaves, mulch them with the mower and a mulching blade. This kind of mulching adds organic matter into your soil and eliminates the disposal of bags of leaves. The preferred length for grass in the winter is 1.75 inches. The last application of fertilizer for fescue lawns should be applied now. Use a nitrogen-only fertilizer such as ammonium nitrate (34-0-0) at three pounds per 1,000 square feet.

ANNUALS

Plant winter annuals now. Some of the most frost-tolerant include English daisy, Johnny jump-up, forget-me-not, pansy, viola, ornamental cabbage, and kale. Here are some other cool season annuals for our region: bachelor's button, delphinium, rocket larkspur, foxglove, Chinese forget-me-not, stock, Shirley and California poppies, dianthus, wallflower, snapdragon, and nasturtium.

PERENNIALS

Plant perennials such as coneflower, crinum, shasta daisy, African iris, daylily, lycoris, liatris (*Liatris scariosa*), and wreath goldenrod. After these perennials have finished blooming, cut them back to just a few inches above the ground, and add the trimmings to your compost.

BULBS

Dig up summer bulbs such as tuberous begonias, dahlias, caladiums, amaryllis, and gladiolus for winter storage. Spring bulbs should not be planted until the soil temperature is below 60 degrees at 6 inches deep. To ensure even flowering, dig out entire bed to recommended depth (three times deeper than the diameter of the bulb), and set them on the soil in a staggered grid pattern. Mix organic matter into the backfill, and carefully refill the bed so that the bulbs are not disturbed. Water well to



settle the soil and add more soil to level the bed. Topdress the area with a slow-release fertilizer (5-10-20 for daffodils; a 9-9-6 for tulips and lilies). Mulch the bulb bed with pine needles or finely ground bark to keep out weeds.

VEGETABLES

Do not harvest cole crops such as cabbage, kohlrabi, and broccoli until a hard freeze is forecast. They will withstand temperatures as low as 26 degrees; collards and kale will tolerate 20 degrees. In fact, the flavor of greens seems to improve after they've been nipped by frost.

ORNAMENTALS

There's still time to plant or transplant trees and shrubs. Remember that there is no benefit from using a fancy soil amendment by itself to fill the hole; use the backfill mixed with a some organic matter. Protect new young trees from winter and wildlife with plenty of mulch and a paper or plastic trunk wrap. When soil dries to 1 or 2 inches deep, water plants slowly. Gardenias need deep mulch after the first frost; cover them with burlap or similar material when ice and snow are expected.

HOUSE PLANTS

House plants don't need as much water during the winter. Water when soil feels dry to the touch.

GARDEN CLEANUP

Dead stalks and other debris left in the garden provide places for insects and diseases to winter over. Remove and destroy any infested material. Now is a good time to take inventory of tools and to clean, oil, and sharpen them before winter storage. Shalah Brummett suggests storing tools in a bucket of sand mixed with enough oil to thoroughly dampen the sand.





Landscaping for Winged Wildlife

— Helen Hrcnac

Did you know that for one out of every three bites of food we take, we should thank a bee, butterfly, bat, bird, or other pollinator? And what can spice up your life better than the sight of colorful butterflies and birds in your garden? But who wants to let their yard go “wild” in order to encourage these lovely creatures to stick around? That kind of yard isn’t for everyone, and isn’t really necessary. What wildlife needs in your landscape are food, water, nesting spots, and safe sanctuary. All of these can be furnished without major disruption of your landscape plan — perhaps in just a corner of your yard.

The best plants to provide food for birds are: Black-eyed Susan, crab apple, cranberry, dogwood, holly, juniper, mulberry, ornamental grasses, pine, ash, honeysuckle, service berry, beauty berry, purple cone flower, roses, sunflower, coreopsis, goldenrod, and viburnum. You probably have some of these in your garden already. Birds who eat on the ground will appreciate lots of mulch where they can dig for worms and insects. Migratory birds look for high-fat fruits and seeds, such as magnolia, to supply energy for their journey. Winter residents will need extra food to keep them warm. A variety of plants should be included so that there is always something ripening from spring through winter. The most readily visible and attractive color for birds is red.

Hummingbirds love beebalm, cardinal flower, fire pink, red columbine, red penstemon, red sage, salvia, nicotiana, ajuga, and just about any trumpet- or tubular-shaped bloom. Just remember that deadheading means no food for the birds.

And be sure the variety you purchase is not a fruitless one (a male species or one bred to be fruitless). The less pesticide you spray, the more food birds will find. Notice which plants your neighbors have in abundance and choose something different to offer variety.

Of course, your yard won’t be very bird-friendly without water. Birds pant instead of sweating so their mouths dry out especially in warm weather. But water is important for survival in winter too. Some birds like to sip at ground level, while others prefer drinking higher up. Be sure that at least one water source and one feeder are 10 or more feet away from any cover where predators can hide. The water should be kept clean, and not more than 3 or 4 inches deep. The bottom of the birdbath should not be slick. If the sides of the birdbath are steep, place a flat stone or two for birds who like shallow water. Water features are great since insects will gather there too and provide more food. Hummingbirds like a misty fountain.

As for nesting spots, most bird lovers provide a house or two — be sure to check with the Audubon Society or the Extension Office for correct dimensions and locations for the birds you want to attract. Many a disappointed gardener has discovered belatedly that his fine martin house is filled with sparrows because it was surrounded by trees rather than sited out in the open as martins prefer. Trees with dense canopies are needed nearby, if not in your yard, then perhaps a neighbor’s. If your tree loses a limb and a hole is left, don’t fill it; it will make a fine nesting spot for woodpeckers or owls. Even a dead tree can be left standing if it’s not in imminent danger of falling, as it will provide both nesting space and insects for feeding. At spring cleanup time, leave in a secluded garden corner things like lint, strings, bits of fabric, and anything else birds can use in nest-building.

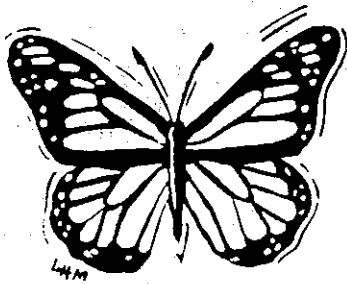
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Birds fall victim to all sorts of predators — cats and dogs, snakes, squirrels, raccoons (who rob eggs from nests), hawks, and owls. And birds need protection from storms, heat, cold, wind, rain, and snow. Thick, canopied shrubs and trees, tall grasses, and shrubs with thorns provide safe places for birds to roost and hide.

Plants that are best for butterflies include aster, beebalm, black-eyed Susan, butterfly bush and weed, caryopteris, cosmos, hollyhock, Queen Anne's lace, salvia, thistle, weigela, yarrow, zinnias, cone flowers, coreopsis, and milkweed. And of course the caterpillars need food — milkweed for monarchs and parsley for black swallowtails. Butterflies like shallow water, so placing stones in a deeper birdbath is great for them also.



As you no doubt have heard, populations of bees have drastically decreased the past few years to the point that it has affected commercial production of fruits and vegetables. Lack of pollinators is also causing the decline of various rare flowers and plants. Pesticides, mites, and diseases have taken their toll on our tiny pollinators. Remember not to spray when pollinators are at work, use non-residual chemicals, and follow directions carefully.

Once the spray has dried, it should be safe for them. Look for flowers and shrubs that bloom throughout the year in order to provide a continuous source of nectar and pollen. Black-eyed Susan, purple cone flower, daisies, dogwoods, clovers, sunflowers, thistles, honeysuckle, sweet milkweed, sages, salvia, beebalm and other mints (bees love mints) and curly willow will provide food for wild bees. Goldenrod is especially important since it is one of the last heavy-yielding plants of the season and the pollen is high quality. Interestingly, bumblebees are actually more efficient pollinators than honeybees.

Bats, hummingbirds, moths, and butterflies are among the pollinators that seasonally mi-



grate long and short distances between mountain ranges, regions and countries. Urban dwellers can have a significant impact by providing nectar sources and nesting sites along the "nectar corridors" so the tiny, but much needed pollinators can reach their destinations. Some migrants travel 2,000 to 4,000 miles a year, and habitat loss in one area of their range may limit their populations overall.

Bats are tremendous insect eaters, disposing of 3,000 to 7,000 insects each night! If we had a few of these nearby, we might actually be able to relax on our deck or patio on a summer evening! Bats work best if there is a good water source within 1,000 feet. (Where there's water, there are bugs to fill the bat menu). Bat house plans and information are available from the Pulaski County Extension Office. The houses should be bottomless to discourage rodents and others from nesting there and have a roughened interior surface for bats to cling to. Bat houses should be oriented toward the east or southeast so that they warm up quickly in the morning and should be mounted 12-15 feet above ground in an unobstructed spot on an outbuilding or tree trunk. (You probably don't want it too close to your home as the guano has a bad odor — but it's great for your garden!)

Trading Post

Patty Wingfield, 225-5758, wants oakleaf hydrangea.

Dick Butler, 661-9808, has irises and daylilies and wants perennials.

Helen Hronas, 228-5680, has hyacinth bean seeds and baby white and purple single altheas.

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

Kathleen Wesson, 663-9146, wants vinca minor.

Jay Hill, 666-1607, has two arborvitae and three ball topiaries that are about three feet tall.

Lois Corley of the Greenhouse Committee, 666-2498, wants interesting or unusual seeds and cuttings for the spring sale.

Suzanne O'Donoghue, 661-9658, has white yarrow.

Julia Loyall, 835-6810, has bromeliads.

Laurie Brown, 223-3714, has lots of sea oats grass.

Anne Jarrard, 375-3903, wants bulbs for the Victorian Cottage Committee in North Little Rock.

Master Gardener News and Notes

DECEMBER

Make wildlife treats with bird seed, suet, pine cones, and grapevine wreaths from 2 to 4 p.m. Dec. 20 at the third annual Wildlife Treats workshop at Logoly State Park, McNeil. Admission and materials are free. Call (870) 695-3561.

More than 100 species of birds are expected for the fifth annual Christmas Bird Count on Dec. 23 at Lake Chicot State Park, Lake Village. Admission is \$5. Call (870) 265-5480.

JANUARY

Beginners can learn basic indoor herb propagation techniques and organic pest control methods at the fourth annual Organic Greenhouse Workshop on Jan. 10 at the Ozark Folk Center State Park, Mountain View. Bring a sharp pocket knife, pruners, and a sack lunch. The cost is \$35; preregistration is required. The class will be repeated Feb. 7 and March 28. Call (870) 269-3851.

The Organic Herbal Greenhouse II is an advanced study of insect and disease control and soil science Jan. 24 at the Ozark Folk Center State Park, Mountain View. Bring a sharp pocket knife, pruners, and a sack lunch. The cost is \$35; preregistration is required. The class will be repeated Feb. 28 and April 11. Call (870) 269-3851.

FEBRUARY

"Accents of Spring," the 1998 Arkansas Flower and Garden Show, will be held Feb. 20-22 at the Statehouse Convention Center. Featured speakers include HGTV's Erica Glasner, Pam Harper, author of *Designing With Perennials and Color Echoes*, and Pearl Fryer, the chainsaw topiary artist. Eight-by-10-foot exhibit booths include a sign, draping, and two chairs and cost \$400. Garden exhibit space is also available. Call 821-4000.

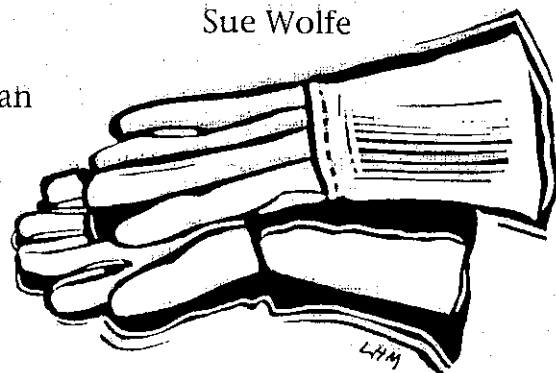


A NOTE FROM BETH

Please welcome and congratulate our new Pulaski County Master Gardeners. You'll probably see a name you recognize or someone you know!

Odel Abraham
 Guy R. Baltz
 Eddie Beasley
 Peggy Allyn Brayman
 Margaret M. Breen
 Gregory Bujarski
 Chris Burgess
 Jim W. Campbell
 Judy A. Cass
 Sabrina Chan
 Jack Chenault
 Pam Christian
 Nancy Cockman
 Bernice Corbell
 Susan Crisp
 Ed Cross
 Nita Cross
 Sharon Hicks-Dangerfield
 Cathy Danis
 Elisabeth Dillon
 Birdye May Farmer
 Jim M. Farmer
 Betty Glasscock
 David F. Greenwood
 Rochelle Greenwood
 Debbie Jackson
 Peggy Gay
 Barbara J. Green
 Rose Hogan
 Alice L. Holcomb
 Vernon E. Hunt
 Paula M. Jennings
 Cheryl Johnson

— Laurie Pierce
 Dan Kelly
 Sandi Kosowski
 Laura Lafferty
 Jean Moffett
 Ann Morgan
 Barbara Ann Ogles
 Betty H. Pagan
 Sharon Roushdy
 Denise Rowland
 Phyllis Rye
 Louis L. Sanders
 Cathy Shaneyfelt
 Amata B. Smith
 Claudia Smith
 Edith Smith
 Jeanne Kumpuris Spencer
 Teresa Turner
 Pat Wallace
 Sue Wolfe



MASTER MINUTES STAFF 1997

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Miscellaneous	Beverly Brown
	Dawn Jackson
	Janée Miller

Plant of the Month: Louisiana Iris

— Julia Loyall

Undisturbed in the Louisiana swamps for centuries in a warm and wet environment natural hybrids of the genus *Iris* developed which outnumbered any such natural iris phenomenon yet known in the world. These beardless irises constituted what John Mertzweiller and Marie Caillet's book *Louisiana Iris* calls "a national treasure in horticulture."

Until the 1920s, these wildflowers were known only to swamp trappers, fishermen, and a few plant enthusiasts who braved the swamps to dig novelties for their home gardens. The importance of various species of Louisiana iris was first recognized and publicized in the 1920s, when John K. Small, curator of New York Botanical Gardens, looked out his train's window while traveling across south Louisiana and saw fields of unfamiliar flowers. The beauty and diversity of color brought him back many times to collect specimens.

John James Audubon was apparently the first to use the name "Louisiana iris" when he drew one in the background of his painting of the Purulla warbler. Today five species are recognized as Louisianas. *Iris hexagona* from the southeastern United States was first described by Walter in 1788. *Iris fulva*, which brought red to the iris spectrum, was described in 1812 as a New Orleans plant, and *Iris brevicaulis* was described by Rabinesque in 1817. *Iris giganticaerulea*, the "giant sky blue" was not described until Small's articles in 1929. Species *Iris nelsonii* was described by Randolph in 1966. Previously it had been known as "Abbeville red" or "Abbeville yellow" or "Super fulva."

Southerners who had been disappointed by the performance of the popular bearded irises in their gardens were delighted with these beardless beauties whose culture was so much better adapted to their soils and climate. Lucky New Orleans residents had a concentration of these flowers close to the city. Today, between harvesting of wildflowers and land development, few Louisiana irises are found in the wild.

In 1941, Ira S. "Ike" Nelson was professor of horticulture at what is now the University of Southwestern Louisiana in Lafayette. He caught the enthusiasm of collector "Mr. Mac" Macmillan, who had discovered the red and yellow Abbeville irises two years before. In the spring of 1941, these men and about 20 collectors organized what would become the Society for Louisiana Irises. In the memory of Mary Swords DeBaillon, a prominent longtime collector, the society awards a bronze medal to the Louisiana iris voted by official judges the best of the year.

Hybridizer Henry Rowlan of Little Rock this year

won the Mary Swords DeBaillon Award for the 32-inch fuschia Louisiana "Voodoo Magic." Rowlan also won the award in 1987 with the currant-red "Frank Chowning," named for another prominent hybridizer from Little Rock.

Louisianas belong to subsection Apogon (beardless), series *Hexagonae* of the genus *Iris*. Siberian, Japanese, Pacific Coast, and other beardless iris belong in this group, but only Louisianas originated in America.

The Louisianas are beardless, often with a bright signal where the beards would be. Three falls droop slightly and the three standards are relaxed or reflexed, not so upright as in bearded iris. The three style arms radiate outward one-third to one-half the length of the falls. The wide color range delights collectors. Each bloomstalk may bear seven to 10 or more flowers. Height, color, and blossoms vary greatly among species.

Louisianas love sunny bogs but adapt readily to other situations. They tolerate some shade midday in central Arkansas summer. Plant in acidic soil with lots of not-too-coarse organic matter. Use no lime! Possible amendments to the bed's soil could include finished compost, Canadian brown peat moss, and shredded leaves — not green materials. Keep the beds evenly moist, but not necessarily soggy. Rhizomes should be one inch deep. Mulch deeply with pine needles to preserve moisture and prevent weeds and sunscald. Water well, especially with new plantings. More water is needed during active spring and fall growth. Summer watering prevents dormancy and improves flowering.

Plant and transplant in fall, three to four weeks before the first frost. Soak in plain water before planting. Space at least two feet apart. Feed these hungry plants with liquid fertilizer such as Miracid 30-10-10, as for azaleas. A hose end sprayer works well to avoid damaging shallow roots. These are healthy, disease-resistant plants, but watch out for slugs and grasshoppers.

Flowering occurs usually about two weeks after bearded iris peak bloom. Start fertilizing four to six weeks before flowering.

The Central Arkansas Iris Society has begun preparing to host the national convention of the Society for Louisiana Irises in May 1999, so the society's 1998 annual rhizome sale will be a great place to buy Louisiana rhizomes in July. If you acquire Louisianas in summer heat, pot them up and let stand in shallow water until optimum planting time in September or October. Expect peak bloom in two to three years.

The Backyard Berry Book

— book review by Jan Gauntt

The Backyard Berry Book: A hands-on guide to growing berries, brambles, & vine fruit in the home garden, by Stella Otto. 1995; OttoGraphics, 8082 Maple City Rd., Maple City, MI 49664; \$15.95, softcover; 284 pp.

As you plan your 1998 garden, you might think about adding some small fruits. Most berry plants are reasonably priced. You can plant some this spring, then harvest sweet treats in only a year or two - then on into the next century. Small fruits discussed in this book include strawberries, blueberries, blackberries, raspberries, bunch grapes, and muscadines.

Otto has expertise for teaching about fruits. She owns a fruit farm and is a horticultural instructor and consultant. Her previous book "The Backyard Orchardist" won rave reviews and is still one of the best books available on adding tree fruits to home plantings.

She's done an equally fine job now for small fruits. This book excels for both beginners and experienced gardeners. Otto brings in details that aren't usually found in information directed toward amateur fruit growers. (For instance, she advises that blackberry roots are easily damaged by strong sunlight and should be shielded during planting.) She organizes and explains the information well.

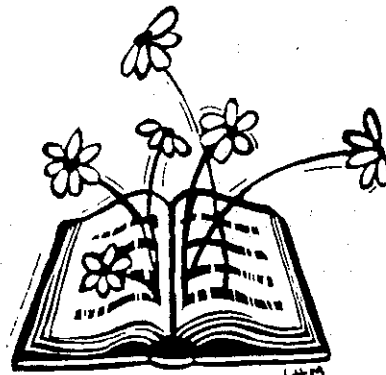
Otto strongly emphasizes appropriate site selection and preparation. She lists many berry and grape varieties, and recommends contacting the county extension service to find out which varieties do well in your area. Fruits are more finicky about locale than many plants. She gives tips on deciding which types of fruits you might find especially reward-

ing to grow on your property. She tells in detail how create environments in which they can thrive and produce well.

The book's discussions of botany, soil, fertilizers, watering needs, pruning, and good horticultural practices are clear and concise. A gardener can better tend to plants when understanding the "why's" of good care. Otto also explains strategies for pest control including Integrated Pest Management. She encourages the gardener to choose the least toxic approaches that work. Many berries can be managed organically.

Even if a yard lacks space for a separate fruit garden, small fruits can be added as ornamental borders, hedges, or arbors. Usually a small number of plants provides enough fruit for a family. Otto mentions that some bunch grapes (for instance, Alden, Canadice, and Interlaken) even grow surprisingly well in containers; they can be attractive on a patio.

In summary, "The Back Yard Berry Book" leads you step by step through solid, detailed instructions on choosing and growing these small fruits in the United States. Then our Master Gardener training materials and extension publications offer a wealth of specifics on growing fruit here in Arkansas (best varieties, how-to's, and tips such as clearing out every bit of Bermuda grass before planting blueberries). These sources together give you everything you need to know to launch a fruitful new project.



Committee Chairs for 1998

GOVERNOR'S MANSION GARDEN Fred Henker, Co-chair, 14300 Chenal Parkway No. 7016, Little Rock 72211, 223-0665. Mildred Walton, Co-chair, 120 No. Spruce, Little Rock 72205, 663-7331.

JACKSONVILLE CITY HALL Rebecca Camp, Chair, P.O. Box 622, Jacksonville 72078, (W) 982-0434, (H) 835-8285.

PINNACLE STATE PARK Martha Whitehurst, Chair, 28 Yacht Club Drive, Little Rock 72212, 868-4517.

BAPTIST REHABILITATION INSTITUTE Aleta Newell, Co-chair, 724 No. Coolidge Street, Little Rock 72205, 666-0991. Hilda Boger, Co-chair, 33 River Ridge Road, Little Rock 72227, 225-0434. Mildred Walton, Co-chair, 120 No. Spruce, Little Rock 72205, 663-7331.

ARKANSAS ARTS CENTER Suellen Roberts, Co-chair, 49 Tallyho Lane, Little Rock 72207, 225-2362. Mary Ann Francis, Co-chair, 32 Nob View circle, Little Rock 72205, 225-5384.

CONTEMPLATION GARDEN Kelly Quinn, Chair, 18 Coolwood Drive, Little Rock 72202, 661-4642.

MOUNT HOLLY CEMETERY Nancy Wade, Co-chair, 3623 Hill Road, Little Rock 72205, 664-8460. Ruth Parker,

STATE HOSPITAL Connie Panos, Chair, Wingate Drive, Little Rock 72205, 225-4920.

OLD MILL Wincie Hughes, Chair, 4 Pine Tree Point, North Little Rock 72116, 758-5271. Sue Anderson,

PULASKI COUNTY EXTENSION OFFICE Jane Gulley, Chair, 3103 Imperial Valley Drive, Little Rock 72212, 225-2072.

GREENHOUSE Lois Corley, Chair, 7409 W. Markham St., Little Rock 72205, 666-2498.

RIVER MARKET Kathy Scheibner, Chair, 714 Parkway Place Drive, Little Rock 72211, (W) 225-7776, (H) 225-0478.

CAMMACK VILLAGE FRUIT GARDEN Ann Ward, Chair, 7216 Rockwood Road, Little Rock 72207, (W) 340-6650, (H) 666-1303.

VICTORIAN COTTAGE Anne Jarrard, Chair, 1700 S. Spring St., Little Rock 72206, (W) 375-4249, (H) 375-3903.

WAR MEMORIAL PARK Terri Bonner, Co-chair, 2009 Beechwood St., Little Rock 72207, 663-4633. Martha Chisenhall, Co-chair, 3 Ridgeview Court, Little Rock 72227, 221-2018.

SOCIAL COMMITTEE Anita Chamberlin, Chair, 3400 North Hills Blvd., North Little Rock 72116, 758-1959.

TRAVEL COMMITTEE Linda Hólbert, Chair, 4 Gibson Drive, Little Rock 72227, 225-6806. Ray Sarmiento, Co-chair, 6909 Flintlock Road, North Little Rock 72116, 835-2890.

PROGRAMS Martha Jones, Chair, 1117 N. Bryan St., Little Rock 72207, 663-2373.

NEWSLETTER Laurie Pierce, Editor, 618 Asbury Road, Little Rock 72211, (W) 378-3471, (H) 954-9605, (FAX) 372-3908.

SPEAKERS BUREAU Linda Dantzler, Chair, P.O. Box 6212, North Little Rock 72124, 771-0844.

December Checklist for Gardeners

— Libby Thalheimer

PERENNIALS

Cut off dead foliage after frost. Remove fallen leaves that may smother mat-forming plants such as pinks and thyme. Cut back frost-nipped perennials now, but leave 2- to 3-inch stalks to help you find them. This will prevent accidental uprooting of dormant crowns when you plant in early spring. Wait until the first hard freeze to apply mulch to keep the soil and even temperature, and to prevent alternate thawing and freezing. Divide plants when new growth appears. Mulch lilies if this was not done at time of planting. Move perennials anytime in late January as soon as the soil is crumbly.

BULBS

After Christmas, stock up on amaryllis bulbs as the price plunges. Put the potted bulbs in a warm, sunny spot, and water sparingly until growth starts; then keep soil moist. The timing will be just right for a show of blooms on Valentine's Day.

VEGETABLES

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. Kale and spinach also overwinter in most areas (mulch with pine straw). Although growth will stop in cold weather, it will resume in spring and produce greens into May. 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. Start broccoli and cabbage seeds indoors in January for transplanting 6 to 8 weeks later.

ORNAMENTALS

In mid-January, fertilize trees. Trees and shrubs may be moved in late January any time soil is friable. Spray broadleaf evergreens (hollies, photinia, and euonymus) if infested with scale with a dormant oil just before bud break. January is a good time to plant winter-blooming shrubs like winter honeysuckle (*Lonicera fragrantissima*) or winter jasmine (*Jasminum nudiflorum*). The latter part of January is an ideal time to plant sweet peas. Remember to fertilize pansies regularly all season during any warm spell. Water regularly, especially in cold weather and before a heavy freeze. Don't saturate them — they just need to be moist.

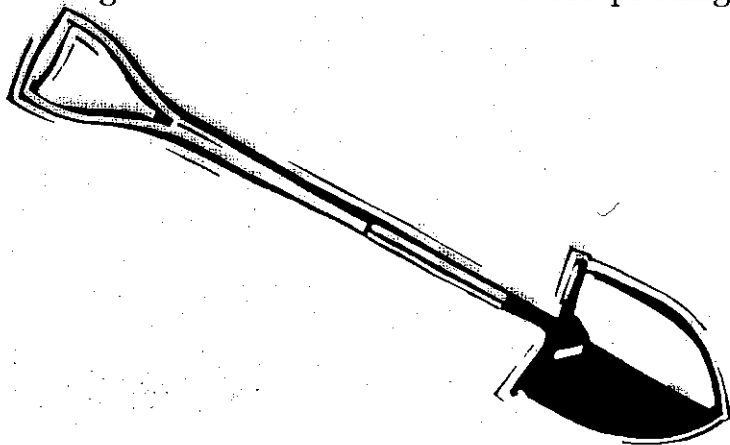
HOUSEPLANTS

Rotate plants from dim locations to sunny ones so they will stay in good condition through winter. Remember to avoid placing them near vents as dry heated air will

damage the leaves. Check plants weekly to ensure the soil is moist.

COLD PROTECTION

To protect cold-sensitive plants from a freeze, cover them with a box or blanket, burlap, or even a sheet. You can also use plastic, but only if it is supported and doesn't 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.



What Works!

— Salah Brummett

Happy Holidays! The first day of winter is just around the corner but once again, the weather threw us a curve. We suffered the humid temperature in the eighties at mid-October only to have just enough time to move plants inside to avoid frost a short month later! I, for one, hate to move inside, but am determined to find horticultural activities galore until I can dig once more. Here are some ideas for early winter.

MUCH ABOUT MULCH

When mulching, don't put down a heavy covering until the ground is really frozen, so little animals won't nest there, only to possibly have their new families disturbed in the spring.

Allow leaves to decompose before mulching with them to avoid potential fungus problems caused by poor air circulation.

YOUR ACHING BACK

When tidying decks and yards we sometimes incorrectly lift items which could cause serious back problems. Here are some better ways to heft those heavy objects.

Crouch by the object with feet apart alongside the load. Keep you back straight and lift from the legs.

Don't lift awkward shaped or very heavy objects alone. Use a rope or sturdy straps like handles at each end. You and a friend then lift together, again from the legs.

CABIN FEVER

If plants you brought inside had "hitchhikers," use the following: Using a vegetable peeler, shave old soap; scraps and put in a spray bottle. Fill with water and spray all over that plant, espe-

cially the trunk and undersides of leaves.

Save wood ashes from your winter fires to later sprinkle around any plant susceptible to cutworms.

DECK THE HALLS

To keep evergreen boughs fresh longer, soak their cut ends in a solution of one-half brown sugar to each gallon of water for no less than twenty-four hours. (Dissolve the sugar in a small amount of water, then pour the solution into a pail of water.)

What Works! is a forum for gardening, design and craft ideas. Do you have an inspiration, comment, or question? Contact us at What Works!, Pulaski County Extension Office, 2901 W. Roosevelt Rd., Little Rock, AR 72204; FAX: 240-6669; or E-mail Pulaski@uaexsun.uaex.edu

Checklist, continued from Page 6

GARDEN CLEAN-UP

Dead stalks and other debris left in the garden provide choice locations for insects and diseases to overwinter. Remove and destroy any infested material, add the rest to your compost heap. Keep leaves off the lawn. This is a good time to take inventory of our tools and to clean, oil, and sharpen. Check condition of spraying equipment, hose attachments or pressure sprayers. Make an inventory of flats, stakes, labels and replenish your supply if necessary. Make necessary repairs to cold frames.

COMPOST

Keep adding debris and turning your compost piles. Pine needles do not break down as fast as leaves and other clippings. You may want to consider using the needles this year for a top mulch.

LAWNS

Apply Atrazine or Simazine to warm-season turf grass for preemergence and/or postemergence control of annual bluegrass and selected winter annual broadleaf weeds from November through February. If thatch exceeds one-quarter inch, use a vertical mower to remove it. Thatch is most effectively controlled by top-dressing soil with a one-quarter inch layer of topsoil.

PLANNING

If you can't garden now, you can plan for next season. Winter is good time to prepare the soil for new beds or adding amendments. Whether your soil is clay or sand, it will benefit from the addition of compost, manure, or other organic matter. Plan changes, additions, or corrections to your garden. Garden catalogs and seed books are a good source for hard-to-find items, and they also pump you up to get out there and get started. Order seed for early planting.

Curious Gardeners Get New Varieties for 1998

Editor's note: Beth says to keep an eye out for these new varieties selected by the University of Arkansas Department of Horticulture and the University of Arkansas Cooperative Extension Service and the National Garden Bureau.

ARKANSAS SELECT: BETTER PLANTS FOR ARKANSAS GARDENS

The Department of Horticulture and the Arkansas Cooperative Extension Service in cooperation with the Arkansas green industry are initiating for the spring of 1998 season a program to identify superior landscape plants for state gardeners. The program, called Arkansas Select, will identify a total of four to six superior plants each year to be highlighted in a plant promotion program. The plants were nominated and selected by industry leaders on the basis of being new and under-used plants plus having great garden potential and overall adaptability. The plants will be promoted through newspaper, radio and point of purchase sales material. The Arkansas Select plants will be available from greenhouses, nurseries and garden centers around the state.

The plants selected for promotion in 1998 are:

Salvia coccinea "Lady in Red"; Lady in Red Texas Sage (annual)

Salvia nemorose "May Night"; May Night Perennial Salvia (perennial)

Pennisetum alopecuroides "Hameln"; Dwarf Fountain Grass (perennial)

Zinnia angustifolia "Crystal White"; Crystal White Mexican Zinnia (annual)

For more information on the program, call Gerald Klingaman at (501) 575-2612.

NATIONAL GARDEN BUREAU PICKS FOR 1998

Editor's note: From the September 1997 issue of Today's

Garden, a publication of the National Garden Bureau, Downers Grove, Ill.

Gardeners are looking for new plants every year. Here are new flowers and vegetables that will be featured in 1998 mail order seed catalogs, seed packets or as bedding plants at garden centers. The varieties are listed alphabetically by class, with the seed source listed in parentheses after the description. The designation "R" means a retail seed company from which gardeners may purchase seed directly by mail order or also in stores that carry the variety in seed packets. A "W" designation indicates a wholesale seed company which does not sell directly to home gardeners, but these varieties should be available in catalogs or as bedding plants at garden centers next spring.

Melampodium 'Million Gold' is a golden yellow, heat tolerant plant blooming continuously until the first frost. It does particularly well in hot and humid climates. (American Takii) W

Pansy 'Baby Bingo' Series has more blooms per plant than other pansies. Very heat tolerant, these outstanding garden performers also overwinter well. The plants are compact and well-branched. Colors include Beaconsfield, Denim, *Midnight, Sky blue, Yellow and Winter Blues Mix (PanAmerican) W

Petunia 'Fantasy Series'. this breakthrough series - the only miniature petunias on the market - features three new colors. 'Fantasy Carmine', 'Fantasy Crystal Light Salmon'* and 'Fantasy Sky Blue'. 'Fantasy' is now available in 10 colors. All are ideal for containers, hanging baskets or mixed bowls. (Goldsmith) W

Petunia 'Prism Sunshine'* 1998 AAS Winner for improved color. It is truly a yellow petunia. The single grandiflora bloom is 3 to 3 1/2 inches and the vigorous

plants may spread up to 18 inches depending upon growing conditions. Look for bedding plants at garden centers. (Floranova) W

Petunia 'White Storm' Unleash the power of 'Storm' with new 'White Storm'. This new color rounds out this great weather-tolerant grandiflora series. Plants are quick to recover from inclement weather and also fight Botrytis better than other petunias. (Goldsmith) W

Snapdragon 'Floral Showers fuchsia'* Series. In 1997, 'Floral Showers' Series adds three new colors and one improved color for a total of 13 colors in the 'Floral Showers' Series. One new color is Fuchsia*. (Sakata) W

Vinca 'Blue Pearl'* has fascinating, light blue blooms with white eyes and overlapping flower petals. The large, dark green, well-branched plants deliver excellent garden performance and can grow in conditions too stressful for other Vincas. (PanAmerican) W

Vinca 'Heat Wave' Series is the earliest flowering series of heat tolerant Vinca. While most Vinca produce plants with a broom habit, the Heat Wave Vincas have a branching habit that forms into a globe in the garden. Garden height is approximately 10 inches. (Bodger) W

Viola 'Penny Blue'* if you want a Penny for you thought, think 'Penny' Violas. This hybrid Viola series is available in 6 colors, including new 'Penny Blue'. This is a clear mid-blue flower about 1-inch in diameter. (Goldsmith) W

Zinnia elegans 'Oklahoma Mix'* Series 30-40 inches (75-100 cm). This exciting medium size cut (1.25-1.5" — 3-4 cm blooms) has very bright colors and is a heavy producer all season long. Most flowers are fully double with some semi-doubles. In trials, the 'Oklahoma' Series has also been much less susceptible to Powdery Mildew. (Benary) W