

Horticulture Tips

April 2003

Oklahoma Cooperative Extension Service
Division of Agricultural Sciences and Natural Resources
Oklahoma State University

Managing Those Sprinkler Irrigation Systems

David Hillock

Whether you have an in-ground, automatic irrigation system or just a hose end sprinkler to irrigate your landscape it is important to manage them properly in order to conserve water, save money and promote healthy plants. Here are a few things to consider.

In general, it is recommended that one inch of water per week be applied to maintain optimum growth of plants. This will depend of course on weather conditions, soil types and types of plants grown. During the hot dry part of the summer, 2 to 3 inches per week may be needed. So, it is important to know how much water your system is putting out at any one time. The best way to figure output is by randomly placing small, straight-sided containers under the sprinkler patterns. Tuna cans work great. Turn the sprinklers on for 10 or 15 minutes then measure each container and average the amount of water caught during that time. This will tell you how long you need to run the sprinklers in order to apply one inch of water. For example: you ran your sprinklers for 15 minutes and caught on average 1/4 inch of water. Therefore you would need to run your system for one hour to apply one inch: $1/4 \text{ inch}/15 \text{ minutes} \times 4 = 1 \text{ inch}/\text{hour}$. This all sounds simple enough, run the sprinklers one hour to apply one inch of water, but not all soils absorb water that fast. Usually, if it is a clay soil, the water is running off and down the street long before we can apply that one-inch of water. So, what should we do? Turn the sprinkler off when it reaches the point of puddling or runoff and allow the water to soak in. This may take several hours or even a day. After sufficient time has passed apply the rest of the water.

Another principle to consider is when to water. You're doing your landscape and water bills no favor if you are watering in the heat of the day. Evaporation is at its highest when the sun is beating down or the wind is blowing, robbing your landscape of water you were intending to give it. More important, much more water must be applied in full sun to achieve the same benefit as less water applied during other times.

Watering early morning is usually best to avoid high temperatures and windy conditions. So check that clock and water in the early morning. Another benefit to watering early morning rather than evening is that plant foliage dries quicker as the sun comes up and the winds begin to blow reducing chances for diseases to develop. If watered late at night, the foliage stays wet longer, the air is more humid and these conditions are favorable for disease development.

Of course one should periodically check the system to make sure it is operating properly. Watch for breaks, clogged or broken heads, and sprinklers spraying sidewalks and streets and make corrections as needed.

By following these simple fundamentals of irrigation we can all save our precious water and at the same time have beautiful looking landscapes.

English Ivy

Mike Schnelle

A commonly received call this time of year is regarding the new growth of English Ivy (*Hedera helix*). When this vine is allowed to climb over the years, its leaf shape changes. Juvenile foliage (towards the ground) is 3 to 5 lobed and is what we all have a mental image of what the vine should look like. However, on sexually mature growth, the leaf loses its lobing and is more narrow in appearance. White flowers followed by black fruit can also be found on the "ends" of the vines high up on buildings or in the crowns of trees.

Dutch Elm Disease

Mike Schnelle

Dutch elm disease has been detected in several trees this spring throughout Oklahoma. The disease can only be confirmed through a plant disease diagnostic lab. Encourage clientele to consider submitting samples to OSU for an accurate diagnosis. Otherwise, homeowners often waste money on useless chemicals and more importantly lose valuable time in intervening with effective treatments.

Stressed Blue Spruce

Mike Schnelle

Now is the time of year when Blue Spruces start to exhibit needle dieback and just an overall sickly appearance. Although specimen Blue Spruce can be found in Oklahoma, the Blue Atlas Cedar is an appropriate substitute for most of the state. Check with your local nursery or garden center to obtain this tree.

Southern Magnolia

Mike Schnelle

The older leaves of *Magnolia grandiflora* often look diseased this time of year. In most cases, the older leaves are simply starting to die which is a natural process. The older leaves often have "freckles" and brown leaf margins.

Do not spray the tree unless a plant pathologist has detected a disease. New leaves will soon replace the older growth. Also, encourage homeowners to winter irrigate this broadleaf species to avoid dehydration burn the next spring.

Garden Tips for April

David Hillock

- Control cedar-apple rust. When the orange jelly galls are visible on juniper (cedar), following a rain, begin treating apple and crabapple trees with a fungicide. (FS 6235, 7611)
- Fire blight bacterial disease (F-7615) can be controlled at this time. Plant disease-resistant varieties to avoid diseases.
- Control of powdery mildew disease can be done with early detection and regular treatment. Many new plant cultivars are resistant. (F-7617)
- Leaf spot diseases can cause premature death of foliage and reduce plant vigor. (F-7608)
- Continue spray schedules for disease prone fruit and pine trees.
- Avoid using Sevin on apple trees until 30 days have passed from bloom or fruit is near the size of a quarter.
- Proper watering of newly planted trees and shrubs often means the difference between success and replacement.
- Keep the bird feeder filled during the summer and help control insects at the same time.
- Most bedding plants, summer flowering bulbs and annual flower seeds can be planted after danger of frost. This happens around mid-April in most of Oklahoma. Hold off mulching these crops until spring rains subside and soil temperatures warm up.
- Let spring flowering bulb foliage remain as long as possible before removing it.
- Wait a little longer for it to warm up before planting cucurbit crops and okra.
- Plant vegetable crops in successive plantings to ensure a steady supply of produce rather than harvesting all at once.
- Cover cucurbit crops with a floating row cover to keep out insect pests. Remove during bloom time.
- Remove any winter-damaged branches or plants that have not begun to grow. Prune spring flowering plants as soon as they are finished blooming. (F-6404)
- Be alert for both insect pests and predators. Some pests can be hand picked without using a pesticide. Do not spray if predators such as lady beetles are present. Spray only when there are too few predators to be effective.
- Lace bugs, aphids, spider mites, bagworms, etc. can start popping up in the landscape and garden later this month. Keep a close eye on all plants and use mechanical, cultural and biological control options first.
- Watch for cutworm damage and add flea beetle scouting to your list of activities in the vegetable garden.
- Don't spray insecticides during fruit tree bloom or pollination may be affected. Disease sprays can continue according to schedule and label directions. (FS 6235)
- Harden off transplants outside in partial protection from sun and wind prior to planting.
- Hummingbirds arrive in Oklahoma in early April. Get your feeders ready using 1 part sugar to 4 parts water. Do not use red food coloring.

- Schedule a group tour of the *Oklahoma Gardening Studio Gardens* in Stillwater between the first of May and late October!
- Warm season grass lawns can be established beginning late April from sprigs, plugs, or sod. (F-6419)
- Warm season grasses can be fertilized four times per season using one pound of actual nitrogen per 1,000 sq. ft. in each of four applications. Apply one pound in April, May, June, and September. Water in nitrate fertilizers. (F-6420)
- Mowing of warm-season lawns can begin now (F6420). Cutting height for bermuda, buffalo, and zoysia should be 1 to 1 1/2 inches high.
- Damage from Spring Dead Spot Disease (SDS) become visible in bermudagrass (F-7665). Perform practices that promote grass recovery. Do not spray fungicides at this time for SDS control.
- Grub damage can be visible in lawns at this time. Check for the presence of grubs before ever applying any insecticide treatments. Apply appropriate soil insecticide if white grubs are a problem (F-7306). Water product into soil.

Garden Planting Guide for Warm Season Vegetables

<u>Vegetable</u>	<u>Time to Plant*</u>	<u>Days to Harvest</u>	<u>Method of Planting</u>
Bean, Lima	April 15-30	90-120	Seed
Beans, Green or Wax	April 10-30	50-60	Seed
Beans, Pole	April 10-30	60-90	Seed
Cantaloupe	May 1-20	80-100	Seed or Plants
Cucumber	April 10-30 or later	50-70	Seed or Plants
Eggplant	April 10-30	80-90	Plants
Okra	April 10-30 or later	60-70	Seed
Pepper	April 10-30 or later	90-110	Plants
Pumpkin	April 10-30	90-120	Seed
Southern Pea	May 1-June 10	85-100	Seed
Squash, Summer	April 10-30 or later	40-60	Seed or Plants
Squash, Winter	May 15-June 15	110-125	Seed or Plants
Sweet Corn	Mar. 15-April 15	80-100	Seed
Sweet Potato	May 1-June 10	100-120	Plants
Tomato	April 10-30	70-90	Plants
Watermelon	May 1-20	90-120	Seed

*These dates indicate planting times from southeast to northwest Oklahoma. Specific climate and weather may influence planting dates. For Cool Season Vegetables, the soil temperature at the depth where the seeds are planted should be at least 40°F.

Yukon Bermudagrass A Great Choice For Seeded Bermuda Lawns, Parks & Grounds

Dennis Martin

Considering a renovation to an improved bermudagrass in 2003? If your project demands seed and bermudagrass, then Yukon seeded bermudagrass may be a great choice for the home as well as commercial lawns, parks and grounds.

Yukon was developed by Turfgrass Scientists at Oklahoma State University and tested as OKS 91-11 in the 1992-1996 National Turfgrass Evaluation Program (NTEP) Bermudagrass trial. The NTEP test results from the trial are available at web address: http://www.ntep.org/reports/bg92/bg92_97-9f/bg92_97-9f.htm. Yukon is adapted to full sun areas throughout Oklahoma. Outside of the state, this is best stated as being the middle and upper regions of bermudagrass adaptation when high visual quality, excellent cold tolerance, and good resistance to spring dead spot disease is needed, as well as when establishment by seed is demanded. Yukon is slightly slower to establish compared to most other seeded bermudagrasses. It should not be used on golf course tee boxes due to its slower divot recovery rate. While Yukon can produce a beautiful fairway at 1/2 inch, its slower divot recovery rate relative to other varieties should be considered. Although it provides high visual quality, Yukon does not have the visual quality of vegetatively propagated hybrids such as Tifway, TifSport or Tifgreen.

Yukon is produced and marketed only as Certified bluetag seed by Johnston Seed Company of Enid and Seed Research of Oregon. Although Yukon was released a few years ago, it took time for establishment of seed production fields and for seed supplies to become available. Yukon is not available as sod or sprigs.

When sowing coated Yukon seed to bare ground, use 1.5 to 2.0 pounds of product per 1,000 sq. ft. See OSU Extension Fact Sheet 6419: *Establishing a Lawn in Oklahoma*, for instructions on how to establish lawns. This as well as many other useful lawn management fact sheets can be found at your local OSU County Extension office or on the web at: <http://agweb.okstate.edu/pearl/hort/turf/f-6419.pdf>.

Melon Pest Manager - An Information and Advisory Resource for Cucurbit Growers

Jim Shrefler

Where can Oklahoma's producers of watermelon, cantaloupe and other cucurbit crops go to easily find timely information about managing insects, diseases and weeds? The answer is "Melon Pest Manager." This Internet site can be accessed at www.lane-ag.org. While pest management information for these crops can be found in numerous sources, Melon Pest Manager is a resource that is specific to the pest problems of Oklahoma producers and is designed to provide the most up-to-date and readily accessible information as possible.

What kind of information can be found at "Melon Pest Manager"? The resource is designed to provide several types of information needed for managing pests in a sound manner. A unique aspect of the site is that it is intended to be a source of the most current information available. As the growing season progresses, information on insect activity and disease incidence will be posted to help keep growers alerted to what is happening across the state with cucurbit pests. Likewise, information such as changes in pesticide approvals that pertain to cucurbit production will be provided as that information becomes available.

Much of the information on Melon Pest Manager is derived from Oklahoma Cooperative Extension Publication E-853 Cucurbit Integrated Crop Management. An online version of the publication may be accessed from the website. The publication provides information on all aspects of cucurbit production in Oklahoma.

For questions about Melon Pest Manager, call the Lane Ag Center at (580) 889-7343.

2003 AAS Winners

David Hillock

Each year flowers and vegetables from seed companies are tested for best performance for the home garden. These trials are conducted nationwide by the All-America Selection non-profit organization. Below are the 2003 AAS winners.

Flowers

Ornamental Millet F1 'Purple Majesty' GOLD MEDAL Flower Award Winner

"Tall, dark and handsome" describes this purple-leaved millet. Young plants are green-leaved; direct sunlight induces the purple leaf color. Capable of growing 3 to 5 feet tall, the plants are embellished with 8- to 12-inch flower spikes. The immature spikes can be cut and used dramatically in floral arrangements. Left on the plant, the millet seed spike attracts birds that snack on seed. 'Purple Majesty' is very easy to grow and is very tolerant of heat and low moisture. The purple leaf blades and spike are distinctly different from all other ornamentals.

Carnation F1 'Can Can Scarlet' Flower Award Winner

This is one of the most fragrant garden carnations. The spicy fragrance will almost fill a room when the double, 2-inch blooms are cut and used in a bouquet. 'Can Can Scarlet' is heat tolerant, producing flowers throughout the growing season into the fall. This variety is perfect for a cut flower garden, the gray-green foliage contrasts with the bright scarlet blooms. Mature plants will reach 12 to 14 inches tall. Flowering pot plants will be available from garden centers in the spring or fall.

Rudbeckia hirta 'Prairie Sun' Flower Award Winner

This robust rudbeckia has distinctive blooms. The light green central cone blends beautifully with the golden-yellow petals, which are tipped primrose yellow. The 5-inch blooms on branching plants that mature at about 3 feet tall make a strong statement in any full-sun garden. Easy to grow and maintain, 'Prairie Sun' is a memorable plant in any perennial, annual or cut

flower garden. Flower stems are sufficiently long for quality cut flowers. 'Prairie Sun' plants become a forceful focal point in any large container.

Petunia F1 'Merlin Blue Morn' Flower Award Winner

A distinctly different blue and white petunia, the 2½-inch blooms are pure white in the center with a soft transition to velvety blue on the petal edge. The bicolor pattern is highly visible from a distance. Best garden performance will occur in full sun. The branching plants will spread 18 to 30 inches and attain a mature height of 15 to 20 inches. 'Merlin Blue Morn' is highly recommended for use in hanging baskets or patio containers. 'Merlin Blue Morn' bedding plants will be available from retail stores.

Agastache foeniculum 'Golden Jubilee' Flower Award Winner

This golden-leaved aromatic herb thrives in a full-sun garden or a partial-shade garden location. The symmetrical, branching plants reach a mature height of 20 inches and spread 10 to 15 inches. The heat-loving plants will produce dense spikes of lavender-blue florets that crown the plants in mid to late summer. The attractive serrated leaves release an alluring mint fragrance when lightly crushed. 'Golden Jubilee' is an easily grown undemanding annual. Named 'Golden Jubilee' to commemorate the 50 years' reign of HM Queen Elizabeth II.

Petunia F1 'Blue Wave' Flower Award Winner

The velvety, dark blue 2-inch blooms cover this trailing plant for the growing season. The plants are capable of spreading 3 to 4 feet like a ground cover. Mature plant height can be 4 to 7 inches. The 'Wave' improvement is little garden toil. No pinching or pruning is needed for 'Blue Wave' to flower all season. The plants need moderately fertile soil to maintain the freedom of bloom. 'Blue Wave' is adaptable to any container. Flowering pot plants will be available at retail stores this spring.

Vinca 'Jaio Dark Red' Bedding Plant Award Winner

A really red vinca with a small white center sets this summer flowering vinca apart from all others. The large 2½-inch blooms can cover the basal branching plant throughout the growing season. The glossy green foliage is not attractive to insects or larger mammals such as deer. When grown in a full-sun garden location, 'Jaio Dark Red' plants can attain a mature plant height of 15 inches, spreading up to 20 inches. Extremely heat and drought tolerant, 'Jaio Dark Red' provides constant garden color with minimal care.

Dianthus F1 'Corona Cherry Magic' Bedding Plant Award Winner

This is the first dianthus with a capricious bicolor pattern. The flower color can be entirely cherry red, entirely lavender or a mosaic of both colors. The unpredictable design is whimsical. Best performance will occur in a full-sun location. Expect large, 2-inch blooms. 'Corona Cherry Magic' plants will reach 7 to 9 inches tall when mature and spread 8 to 10 inches. This annual provides flower color throughout the growing season. 'Corona Cherry Magic' bedding plants will be available from garden centers.

Gaillardia pulchella 'Sundance Bicolor' Bedding Plant Award Winner

The first consistent mahogany red and yellow bicolor gaillardia flower. The globe-shaped blooms are primarily double and can cover the plant throughout the growing season. Exhibiting

heat and drought tolerance, 'Sundance Bicolor' is carefree in the garden. The spreading plants need 15 to 16 inches of garden space, preferably in full sun. This annual needs moderately fertile soil and moisture to flower abundantly during the summer. The spreading habit is desirable for hanging baskets or patio containers.

Eustoma F1 'Forever White' Bedding Plant Award Winner

Simply the best white flowering eustoma for your garden. The large 2½-inch ivory-white blooms cover the plant at various times throughout the growing season. 'Forever White' exhibited heat and low moisture tolerance in trials across North America. The compact, branching plant lends itself to container culture. Attaining a mature height of 12 inches, 'Forever White' plants fit perfectly into patio containers where the blooms can be appreciated with close contact. 'Forever White' flowering potted plants will be available from garden centers.

Vegetables

Melon F1 'Angel' Vegetable Award Winner

An early Mediterranean-type melon, 'Angel' has a heavenly flavor. All melon sugars are scientifically measured as a brix count. 'Angel' measured 16% to 19%, which indicates a very sweet flavor. The 2- to 3-pound melons have a white interior with a crisp texture. 'Angel' helps the gardener know when to harvest. The lightly netted melon skin turns creamy yellow when mature; about 60 days from planting young 'Angel' plants into the garden. 'Angel' vines will spread 6 to 7 feet and are resistant to fusarium wilt races 0 and 2.

Summer Squash F1 'Papaya Pear' Vegetable Award Winner

The first summer squash with a shape similar to a tropical papaya fruit. The bright yellow squash looks like a light bulb with the widest section near the blossom end. One of the earliest varieties, 'Papaya Pear' fruit can be harvested in about 40 days from sowing seed. The semi-bush plant requires less garden space. For plants that yield squash continuously, pick 'Papaya Pear' at a young stage when about 3 inches long and 2 to 3 inches wide. Easy to grow in any garden with full sun.

<http://www.all-americaelections.org/>

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Xeriscape – Water Conservation & Low Maintenance Gardens Through Creative Landscaping

David Hillock

Xeriscape, quality landscaping that conserves water and protects the environment, is a successful concept that has been adopted nationwide. The term Xeriscape was coined in Denver, Colorado in 1978. Since then, more than 40 states have initiated Xeriscape projects in the United States from California to Florida. Demonstration gardens, seminars, television programs and design contests are a few of the methods used to make the Xeriscape concept familiar throughout the nation.

Whether new or old, your landscape can be made more water efficient. With a little effort, you can be on your way to a beautiful Xeriscape. Not only will your yard look appealing, but also good Xeriscape improvements will increase the value and selling potential of your home.

Unfortunately there are a few misconceptions that exist, perhaps due to the meaning and pronunciation of the root word xeric. The term Xeriscape (pronounced zeri-scape not zero-scape) was derived from two terms, “xeric” referring to dry and “scape” referring to vista.

One of the first misconceptions is that Xeriscape means rocks and yucca or cactus and gravel (zero-scape). This misconception is somewhat ironic as the use of rocks and gravel may actually increase temperatures resulting in an increase of water use around nearby plants and an increase in the homes cooling costs.

A second misconception is that Xeriscape means dry landscaping only or “no” water. On the contraire, the design and use of appropriate irrigation is a very integral part of the concept.

And the third misconception is that Xeriscape means no lawn. This is not true either, rather the use of practical turf areas is recommended. Less lawn does not mean lawless.

The seven principles of Xeriscape are not new; they have been practiced in the landscape industry for decades. The concept of combining all seven guidelines into one effort toward landscape water conservation is what makes Xeriscape unique. The principles are given below:

1. *Plan and design* – planning and design is the foundation of any water-wise landscape.
2. *Consider improving the soil* – soil analysis will determine whether soil improvement is needed for better water absorption and improved water-holding capacity.
3. *Create practical turf areas* – practical turf areas suggest that turfgrasses be used as a planned element in the landscape. Avoid impractical turf use, such as long, narrow areas.
4. *Use appropriate plants and zone the landscape* – appropriate plant selection keeps the landscape more in tune with the natural environment. Both native and exotic plants make up the huge variety of plants available for Xeriscape landscaping.
5. *Irrigate efficiently* – by simply using efficient irrigation, you can instantly save 30 to 50 percent on your water bill.
6. *Consider using mulches* – use mulches in flower and shrub beds to increase water penetration during irrigations and prevent water loss from the soil through evaporation.
7. *Maintain the landscape appropriately* – appropriate maintenance preserves the beauty of the Xeriscape landscape plus saves water. Pruning, weeding, proper fertilization, pest control and irrigation system adjustments all conserve water.

Low Water Use Plants

The following is a partial list of plants that will do well with average rainfall and minimal supplemental water in Oklahoma. During times of below average rainfall they can be kept alive with minimal supplemental water. While drought tolerant, they will still need some water to stay alive during an extended drought.

TREES:

- Arizona Cypress (*Cypressus arizonica*)
- Bald Cypress (*Taxodium distichum*)
- Bur Oak (*Quercus macrocarpa*)
- Caddo Sugar Maple (*Acer saccharum* ‘Caddo’)
- Cedar Elm (*Ulmus crassifolia*)
- Chinese Pistache (*Pistacia chinensis*)
- Chinkapin Oak (*Quercus muhlenbergii*)
- Eastern Red Cedar (*Juniperus virginiana*)
- Ginkgo (*Ginkgo biloba*)
- Kentucky Coffeetree (*Gymnocladus dioicus*)
- Lacebark Elm (*Ulmus parvifolia*)
- Oklahoma Redbud (*Cercis canadensis* var. *texensis* ‘Oklahoma’)
- Ornamental Pear (*Pyrus calleryana*)
- Sawtooth Oak (*Quercus acutissima*)
- Shantung Maple (*Acer truncatum*)
- Shumard Oak (*Quercus shumardii*)
- Western Soapberry (*Sapindus drummondii*)
- Winterberry Euonymus (*Euonymus bungeanus*)

SHRUBS:

- Althea or Rose of Sharon (*Hibiscus syriacus*)
- Burford Holly (*Ilex cornuta* ‘Burford’)
- Crape Myrtle (*Lagerstroemia indica*)
- Deciduous Holly (*Ilex decidua*)
- Eastern Arborvitae (*Thuja occidentalis*)
- Glossy Abelia (*Abelia grandiflora*)
- Junipers (*Juniperus* species)
- Mugo Pine (*Pinus mugo* variety *mugo*)
- Nandina cultivars (*Nandina domestica*)
- Shrub roses (*Rosa* species)
- Silverberry Elaeagnus (*Elaeagnus pungens*)
- Smoke Tree (*Cotinus* species)
- Spirea (*Spiraea* species)
- Sumac (*Rhus* species)
- Winter Jasmine (*Jasminum nudiflorum*)
- Yaupon Holly (*Ilex vomitoria*)

CLIMBERS:

- Boston Ivy (*Parthenocissus tricuspidata*)
- Climbing roses (*Rosa* species)
- Crossvine (*Bignonia capreolata*)
- English Ivy (*Hedera helix*)
- Trumpet Vine (*Campsis radicans*)
- Virginia Creeper (*Parthenocissus quinquefolia*)

GROUNDCOVERS:

- Creeping Phlox (*Phlox subulata*)
- English Ivy (*Hedera helix*)
- Junipers (*Juniperus* species)
- Liriope or Monkey grass (*Liriope muscari*)
- Santolina (*Santolina* species)
- Stonecrop (*Sedum* species)

ORNAMENTAL GRASSES (Perennial):

- Japanese Silver Grass (*Miscanthus sinensis* ‘Variegatus’)
- Maiden Grass (*Miscanthus sinensis* ‘Gracillimus’)
- Muhly Grass (*Muehlenbergia lindheimeri*)
- Plume Grass (*Erianthus ravennae*)
- Switch Grass (*Panicum virgatum*)
- Zebra Grass (*Miscanthus sinensis* ‘Zebrinus’)

PERENNIALS:

- Autumn Sage (*Salvia greggii*)
- Bearded Iris (*Iris* species and hybrids)
- Black-Eyed Susan (*Rudbeckia fulgida*)
- Blanket Flower (*Gaillardia grandiflora*)
- Blue Mist Spirea (*Caryopteris x clandonensis*)
- Coneflower (*Echinacea purpurea*)
- Daylily (*Hemerocallis* species and hybrids)
- Gaura (*Gaura lindheimeri*)
- Plumbago (*Ceratostigma plumbaginoides*)
- Russian Sage (*Perovskia atriplicifolia*)
- Shasta Daisy (*Chrysanthemum x superbum*)
- Verbena (*Verbena canadensis*)
- Wormwood (*Artemisia* species)
- Yarrow (*Achillea* species)

ANNUALS:

- Cockscomb (*Celosia* species)
- Cosmos (*Cosmos* species)

- Dusty Miller (*Senecio cineraria*)
- Firebush (*Hamelia patens*)
- Globe Amaranth (*Gomphrena globosa*)
- Joseph's Coat (*Alternanthera* species)
- Lantana (*Lantana camara*)
- Madagascar Periwinkle (*Catharanthus roseus*)
- Marigolds (*Tagetes* species)
- Mexican Bush Sage (*Salvia leucantha*)
- Mexican Heather (*Cuphea hyssopifolia*)
- Mexican Sunflower (*Tithonia rotundifolia*)
- Mexican Zinnia (*Zinnia angustifolia*)
- Ornamental Peppers (*Capsicum* species)
- Pentas or Starflower (*Pentas lanceolata*)
- Portulaca & Purslane (*Portulaca* species)
- Purple Heart (*Setcreasea pallida*)
- Summer Snapdragon (*Angelonia angustifolia*)
- Sunflower (*Helianthus annuus*)

Upcoming Horticulture Events

Commercial Landscape IPM

May 14, 2003

Will Rogers Park, Oklahoma City

Mark your calendars now for a daylong outdoor IPM workshop geared for the commercial landscaper. Details and registration information will be provided in April.

Oklahoma Pecan Growers' Association Annual Meeting

Embassy Suites Hotel (1815 S. Meridian)

Oklahoma City

May 30 – June 1, 2003

Educational Meeting – Saturday, May 31, 2003

Field Day – Sunday, June 1, 2003 – Couch Orchard in Luther, Oklahoma

Oklahoma Gardening Summer Gardenfest

June 14, 2003

Oklahoma Botanical Garden & Arboretum, Stillwater

Lauren Springer, an award-winning writer and photographer, will be our guest speaker. Her presentation will be "Creating a Resonant Garden, Marrying the Natural and the Personal Landscape." Lauren's presentation will begin tentatively at 10:00 a.m. and the other events will follow into the afternoon. This will be a day filled with horticultural presentations, demonstrations, and garden tours will provide an opportunity for *Oklahoma Gardening* viewers

across the state to come and visit the studio set and garner some expert gardening information. This event is FREE to the public. Call 405-744-5404 for more updated information.

2003 Oklahoma Master Gardener Continued Training Summer Conference

June 25, 2003

Tulsa Community College North Campus, Tulsa

The conference is being hosted by the Tulsa County Master Gardeners and Tulsa Community College. Registration packets should be sent out early May. For more information contact David Hillock, Master Gardener Coordinator at 405-744-5158 or hillock@okstate.edu.

Multi-State Ornamental Plant Materials Conference

September 24-25, 2003

Holiday Inn, Stillwater

For more information about upcoming events, please contact Stephanie Larimer at 405-744-5404 or steph@okstate.edu.