



LADY BIRD JOHNSON WILDFLOWER CENTER

Educating people about the environmental necessity, economic value, and natural beauty of native plants.

November/December 1998

Volume 15, Number 6

Plant What Trees?

by Sally and Andy Wasowski

You've probably seen those bumper stickers that say "Trees are the Answer." The plant-a-tree movement is vast, well organized, and necessary—if for no other reason than that every year developers and the logging industry take a heavy toll on our tree population. As Vice President Al Gore wrote in his thoughtful and disturbing book, *Earth in the Balance*, "Forests represent the single most important stabilizing feature of the Earth's land surface, and they cushion us from the worst effects—particularly those associated with global warming—of the environmental crisis."

Go to an environmental conference, an Earth Day gathering, or an Arbor Day celebration and at least one speaker is addressing the issue of reforestation. There is also usually a booth nearby where you are encouraged to adopt a tree or two for your yard. All you have to do is promise to plant these trees and give them lots of TLC.

So what is wrong with this admittedly noble effort? Just this: we once received a mailing from a plant-a-tree group. In it, the tree group offered us a choice of ten saplings. Seven of these species were totally unsuited

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Chionanthus virginicus
Fringe Tree, Old man's beard

to the soil and climate where we lived and would ultimately die. This organization either assumed homeowners would know which trees to reject and which to use, or maybe they just didn't think it mattered. Well, it does.

The wrong tree makes the problem worse, not better.

A conifer that lives in acid soil would be totally wrong for a setting with alkaline soil. Yet we have seen well-meaning groups—including an arboretum who should have known better—distributing acid-loving pines in areas with alkaline soil, and swamp chestnut oaks in areas too dry to support them.

Then there are trees that seem to be right—they are the correct species for a region—but they have the wrong provenance. In other words, they are genetically

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Making Connections: Restoration Education and the SER

In late September, the Society for Ecological Restoration (SER) met for a three-day conference in Austin, Texas. Restoration education was a top agenda item.

With more than 2,500 members representing 24 countries, the organization's reach is wide, and their concern runs deep. SER's members believe that active restoration of damaged ecosystems combined with preservation and management of key natural areas will be a vital component of maintaining biological diversity and function in the coming century.

SER's members broke new ground during this year's conference by directing a substantive portion of the conference toward kindergarten through 12th grade educators. SER's members explored such diverse topics as conservation biology and range management; environmental literature, philosophy, and justice; and restoration of mining disturbances and *riparian*, or stream side, habitats. The conference built bridges between practitioners and educators to enable more socially *affective* restoration projects—projects that are successful because of their outcome and that also change the way individuals *feel* about environmental restoration and programs.



Director's Report

*Robert Glass Breunig, Ph.D.
Executive Director*

Watching fall settle over the Lady Bird Johnson Wildflower Center's grounds, with glorious fall blooms of aster and Maximilian sunflowers, I find myself thinking about the past year's accomplishments and what the future holds for the Wildflower Center.

During the October board of directors meeting, our trustees planned for an exciting year ahead. In the coming months, the Wildflower Center will expand and strengthen our horticulture program to provide the most compelling displays of Central Texas's native plants. Our gardens will feature unmatched color, diversity, and seasonal interest, demonstrating the year-round richness of our region's native flora. We will continue to demonstrate our mission within our gardens, natural areas, and physical facilities.

At the same time, we are committed to strengthening our national outreach programs. In January, our newsletter will expand in both form and function to provide a wider range of native plant resources for members in all parts of the country. Over the year, we will expand the Wildflower Center's web site at www.wildflower.org, enhancing the reference and resource information available on line.

We will continue to sponsor conferences, seminars, and workshops that encourage the use of native plants, including the Native Plant Conservation Initiative's "Taking Initiative: The Future of Native Plant Conservation," scheduled for January 11-15, and the second Managing Roadside Naturally Conference next October.

The Wildflower Center has come a long way since it began working to better understand and preserve America's wildflowers and other native plants in 1982. Today, the Center stands as an example of just what can be accomplished by a committed and focused group of individuals.

In January, 24 members of the Lady Bird Johnson Wildflower Center Board of Directors will rotate off the board. We thank Gail Appel, Laura Lee Blanton, Liz Carpenter, Mary Anne Cree, Nash Castro, Virginia Clark, the Honorable Peter Dailey, Jean Deacy, Robert Ench, Elizabeth Gibbens, Carol Gossard, Terry Hershey, Dr. James Hicks, Lowell Lebermann, Ben Love, Ruth May, Dodie Oppenheimer, the Honorable J. J. Pickle, Warrie Lynn Price, Lynda Robb, Lucinda Seale, Tad Sewell, Charlotte Strange, and Marybeth Weston Lobdell for their years of service to the Wildflower Center's mission. These "retiring" board members have been elected as charter members of the *Lady Bird Johnson Board of Fellows*, a group of friends who have provided distinguished service to the Wildflower Center. We thank them for their dedicated service. Their vision has become reality, and continues to grow with each season.

Lady Bird Johnson Wildflower Center

Founders

Lady Bird Johnson and Helen Hayes

Executive Director

Robert Glass Breunig, Ph.D.

Editor

Karen Bassett

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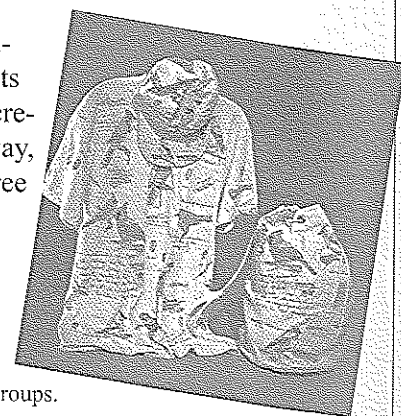
Wild Ideas: The Store Holiday Event

Friday, December 4 through Sunday, December 6

It's time again for *Wild Ideas: The Store's* favorite holiday tradition! From 9 a.m. to 5:30 p.m., Friday, December 4, and Saturday, December 5, we offer tax-free,* in-store shopping. The special sales continue on Sunday from Noon to 5 p.m.

New specials and surprises will be featured each day, and a select group of artists and artisans will be on hand to sell their creations. Whether you live nearby or far away, all Wildflower Center members receive free admission to the Center and a 10% discount at *Wild Ideas: The Store* every day. All proceeds benefit the Wildflower Center's education programs. Call (512) 292-4300 for more information.

*As allowed twice yearly for 501(c)(3) nonprofit groups.



Plant What Trees?

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adapted to another and very different part of the country, so they are wrong for your growing conditions. For example, a bur oak (*Quercus macrocarpa*) is native in both Texas and Vermont, but the one genetically suited to Vermont winters will not be thrilled with Texas summers, and the Texas bur oak will not survive Vermont's winters.

Then there is the live oak (*Quercus virginiana*). This tree is native from the southern Atlantic coast to central Texas and Oklahoma. Now, because you happen to live within that geographical range, you figure any old live oak will do well in your landscape. But what if you live in, say, Dallas, and your nursery purchased its live oaks from some out-of-state grower? Well, if there's a repeat of the notorious winter of '83-'84—when North Central Texas became a deep freeze—your live oak could be in big trouble.

Back then, half of the live oaks popped their barks and died—half of those trees were started by growers in Southern Louisiana. The half that came through generally unscathed were the indigenous live oaks from local growers. These were genetically suited to the kind of extreme winters that periodically hit that part of Texas.

Actually, distributing even the right tree in the right place, if done in massive quantities, can cause problems. Many of the trees you buy at nurseries have been grown from cuttings or were grown from seed gath-

ered from the same few "mother" trees. They are genetically alike, making them vulnerable to a mass infestation of some disease or pest.

To successfully reforest America, we cannot plant any tree just any place. Trees should be grown and distributed locally. To insure survival through the summer, winter, wet years, and dry years, the trees need to be propagated from trees that are native to the immediate vicinity. That bumper sticker needs to be revised. It should read: "Native trees are the Answer."

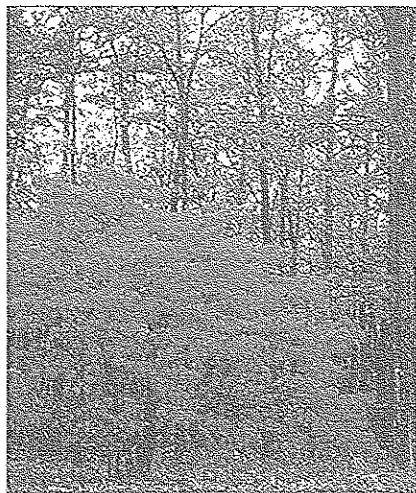


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Quercus alba
White Oak

Sally and Andy Wasowski are the authors of six books on native plants, including the best-selling *Native Texas Plants*, now in its 2nd edition, and its sequel, *Native Texas Gardens*. Sally is a landscape designer, and Andy is a commentator on National Public Radio's environmental program, "Living on Earth." They frequently lecture across the country about native plants.

Trees reach beyond individual residential landscapes and create regional character for neighborhoods and communities. Remember their wide influence and plant carefully. For more information about trees native to your area, contact your favorite native plant nursery or call the Wildflower Center Clearinghouse at (512) 292-4200.



Liquidambar styraciflua (Sweet gum tree)
Southeastern United States

Fall's Fabulous Colors

For some of us, fall's vibrant colors welcome the best time of year. We delight in harvest festivals, Thanksgiving, brisk mornings, and leaves floating to the ground. In many parts of the country, the fall months are unmatched for their natural splendor and bright glory.

America's hardwood forests fill with

bright oranges and reds while splashes of yellow paint the landscape. Another of nature's cycles, the onset of fall colors reflects basic botanical principles.

Leaves capture the sun's energy through *photosynthesis*, converting sunlight into chemical energy, often as carbohydrates, or sugars. Photosynthesis occurs in *chloroplasts*, small structures found in plant leaves, which contain light-absorbing pigments called *chlorophyll A* and *B*, critical components of photosynthe-

sis. Chloroplasts generally absorb light in the red and blue spectrum, but not in the green spectrum. (We see the green spectrum when we look at growing plants.) Chloroplasts also contain *accessory pigments*, which reflect the spectrum they cannot absorb. *Carotenoids* reflect red, orange, and yellow (giving those autumn leaves their bright glow and carrots their orange color); and *xanthophylls* reflect pale yellow and brown. Through the spring and summer, chlorophylls are generally present in concentrated form, hiding the carotenoids and xanthophylls. As fall's days shorten, the light necessary for chlorophyll production is reduced and the concentration of chlorophyll decreases dramatically. This allows the carotenoids and xanthophylls to show more prominently. Without active photosynthesis occurring, perennials, shrubs, and trees drop their leaves, settling into dormancy for a winter's rest.

Next time you are walking over the meadow or through the woods, remember to look up, and indulge a bit in the colors above and all around you. Although fall colors vary from year to year depending on pigment combinations, rain and sun, and other environmental factors, they still provide one of nature's most stunning displays of botanical wonder.

And we thank you . . .

Each year, more than 20,000 members and hundreds of individuals, foundations, organizations, and corporations make financial contributions to the Lady Bird Johnson Wildflower Center's programs and projects. Also, we receive contributions in the form of memorial gifts and tributes. Although each of our contributors has a very special reason for becoming a member, making a donation, or funding a grant, together they support the Wildflower Center's mission to educate people about the environmental necessity, economic value, and natural beauty of native plants. As we look forward, we do so with sincere thanks for their generous support. In addition to many individual contributors, the following corporations and foundations made grants or contributions of \$1,000 or more in 1998.

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| 3M | IBM Corporation | Texas Enterprises, Inc. |
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NORTHEAST

Brooklyn, New York: *Jones Beach and Environs*, November 21 Contact: Department of Adult Education, Brooklyn Botanic Garden, 1000 Washington Avenue, Brooklyn, NY 11225-1099; (718) 622-4433

MID-ATLANTIC

New Hope, Pennsylvania: *Knowing Native Plants: Winter Botany*, November 14 Contact: Bowman's Hill Wildflower Preserve; Route 32, PO Box 685, New Hope, PA 18938; (215) 862-2924 (*Preregistration is required.*)

SOUTHEAST

Decatur, Georgia: *Academy Awards of Native Plants*, November 19 Contact: Georgia Perimeter College Botanical Garden/Wildflower Center of Georgia, 3251 Panthersville Road, Decatur, GA 30034; (404) 244-5001

Sarasota, Florida: *Fall Plant Fair*, November 21-23 Contact: Marie Selby Botanical Garden, 811 S. Palm Avenue, Sarasota, FL 34236; (941) 366-5731

NORTH CENTRAL/MIDWEST

Nebraska City, Nebraska: *The Practice of Restoring Native Ecosystems*, November 5 -6 Contact: National Arbor Day Foundation, P.O. Box 81415, Lincoln, NE 68501; (402) 474-5655

Glencoe, Illinois: *1998 Midwestern Rare Plant Conference and Task Force Meeting*, November 5 - 6 Contact: Chicago Botanic Garden (847) 835-8261

OKLAHOMA/TEXAS

Austin, Texas: *Native Plant Design & Maintenance with Jill Nokes*, November 7 Contact: Lady Bird Johnson Wildflower Center, 4801 La Crosse Ave., Austin, TX 78739; (512) 292-4200

SOUTHWEST

Phoenix, Arizona: *Central Arizona Cactus and Succulent Society*, November 22 Contact: Desert Botanical Garden, 1201 N. Galvin Parkway, Phoenix AZ 85008; (602) 941-1225

NORTHWEST

Anacortes, Washington: *Native Plant Hike to Sugar Loaf Mountain*, November 16 Contact: Washington Native Plant Society/Salal Chapter (360) 293-0405

CALIFORNIA

Palm Desert, California: *Fall Plant Sale* November 7 - 8 Contact: The Living Desert/Palo Verde Garden Center, 47900 Portola Avenue, Palm Desert, CA 92260; (760) 346-5694

Santa Barbara, California: *The Unfinished Journey of Carl Linnaeus--Ethnobotany and Drug Discovery in the 21st Century*, November 14 Contact: Santa Barbara Botanic Garden, 1212 Mission Canyon Rd., Santa Barbara, CA 93105; (805) 682-4726

LOOKING AHEAD . . .

Valhalla, New York: *Using Native Plants in Your Landscape*, February 20 Contact: Native Plant Center at Westchester Community College, 75 Grasslands Road, Valhalla, NY 10595; (914) 785-6670

McKinney, Texas: *Native Plant Gardening*, March 13 Contact: Heard Museum, One Nature Place, McKinney, TX 75069; (972) 562-5566 (*Preregistration is required*)

Many of these organizations host a number of native plant workshops, activities, and events through the season. Please contact them directly for a full calendar of local events or visit our web site at www.wildflower.org for more information. If there is a native plant event that we should include on any of our web listings, please call (512) 292-4200 x 114, or e-mail ATTN: Editor, wildflower@wildflower.org and share your news!

We are losing our trees

Did you know that more than 1,000 tree species in the world are in danger of extinction? That accounts for more than 10% of the total tree species inventory world-wide. Some of these species have fewer than 100 individual trees left.

Following a three-year study commissioned by the Dutch government, the 650 page "World List of Threatened Trees" classifies more than 8,750 tree species as being vulnerable, and of those, more than 1,000 species as "critically endangered." Habitat loss, caused by logging, farming, human settlement, and development, is credited with the threatened condition of these species. Sadly, fewer than one in four of the species identified as "critically endangered" can benefit from conservation efforts.

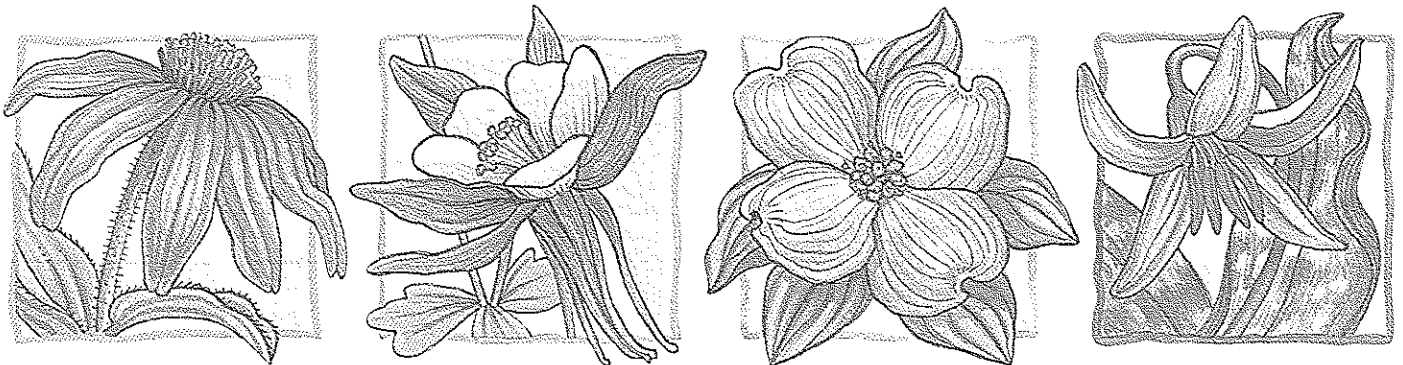
As we look to our own landscapes please remember that our native trees are a critical component of our ecosystem. Remember to "think globally and act locally," and plant carefully.

Each year the Lady Bird Johnson Wildflower Center provides information to thousands of people—from 4th graders to grad students, from home gardeners to landscape designers, and from growers to CEOs—about the environmental necessity, economic value, and natural beauty of native plants. We cannot do it alone. Will you join us?

You may choose to join as a new member, renew your membership, or give the gift that blooms a full year! Simply fill out this form and mail with a check or your credit card information. Members receive many benefits including a 10% discount at *Wild Ideas: The Store*, but most importantly, membership supports the Wildflower Center's education programs.

Your Name: _____	If Gift Membership, to whom: _____
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City/State/ZIP _____	City/State/ZIP _____
<input type="checkbox"/> Mastercard <input type="checkbox"/> Visa <input type="checkbox"/> Discover	Card number _____ Expires _____
Name on credit card _____	Signature _____
<input type="checkbox"/> Individual (\$25) <input type="checkbox"/> Household (\$35) <input type="checkbox"/> Supporting (\$60) (includes lunchbag!)	

Call (512) 292-4200 x 137 for more information on membership levels and benefits. Thank you for your support. 15/6



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- ✿ Membership, (512) 292-4200
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The Wildflower Center is a member of Earth Share of Texas

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Grow Native!

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