

American Horticulturist

September 1994

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ARTICLES

We're using this issue to say "thank you" to members, friends, and supporters in several ways. In each September news edition, we thank those of you who have supported us with financial and in-kind contributions during the previous fiscal year. Without you, we wouldn't have special educational efforts such as our outstanding children's gardening symposia or our internship program, nor could we continue all of our ongoing efforts, such as *American Horticulturist* and the Gardeners' Information Service. Without plant donations from nurseries, River Farm wouldn't be a colorful destination for families and artists, a romantic setting for weddings, and a relaxing location for executive retreats.

Another important member benefit is our annual Free Seed Exchange, and this year we're thanking you for support of that program with a fall "garage sale" (our seed room is in River Farm's old carriage house, but close enough) of seeds from this year's program.

And last but not least, we say "thank you" to some of the nation's foremost horticulturists for their outstanding efforts in fields such as science, teaching, communications, breeding, and philanthropy, through our annual Awards Program.

To all of our members, old and new, student to President's Council, thank you for being with us!

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AHS Award Winners

Liberty Hyde Bailey Award

The Liberty Hyde Bailey Medal, the highest award given by the American Horticultural Society, recognizes horticultural achievement in three or more of the following categories: teaching, research, writing, plant exploration, administration, art, business, and leadership. Past winners include landscape architects, a former first lady, plant breeders and explorers, and botanical garden directors. This year's winner, **Enid A. Haupt**, is without a doubt the nation's premier horticultural philanthropist.

Haupt, of New York City, Greenwich, Connecticut, and Palm Beach, Florida, is also a horticulturist, art collector, the retired publisher and editor-in-chief of *Seventeen* magazine, and no stranger to AHS. In 1973 Haupt purchased River Farm for the Society while she was Secretary of the AHS Board of Directors. The 27-acre farm, one of George Washington's five original working farms, gave the Society a site for its national headquarters as well as for test gardens and collections.

Haupt once told *Town & Country* magazine, "The happiest I've ever been has been in a greenhouse or a garden." By donating millions of dollars to build or repair public parks and garden facilities across the country, she has made sure that others have a chance to share that happiness. Some of the many projects she has made possible include the reconstructed conservatory at the New York Botanical Garden, an outdoor garden at the Smithsonian Institution, and an outdoor therapy garden at New York's Rusk Institute of Rehabilitation Medicine, all named in her honor, and the continuing maintenance of three gardens at the Cloisters, the Metropolitan Museum of Art's center for medieval arts in New York City.

Haupt would say her motivation has never been ecology or political interests but a desire to find beauty, restore it to its ultimate level of excellence, and preserve it for future generations. This is evident in all of Haupt's undertaking's whether they are gardens, collections of art, or her efforts to help physically and mentally challenged gardeners experi-



Enid A. Haupt

ence beauty in their lives.

Frances Jones Poetker Award

Most visitors who time-travel to Colonial Williamsburg, the re-creation of the 17th-century Virginia settlement, probably pay little heed to the flower arrangements. Yet the decorative use of plants ranked high among early American domestic arts. During two decades as horticulturist with Colonial Williamsburg, Libbey Hodges Oliver has been defining and re-discovering the period style of flower arranging that eases passage back to the era. Oliver will receive the Society's Frances Jones Poetker Award, given to flower arrangers who heighten public appreciation of the craft.

While still a student at Virginia Polytechnic Institute, she worked weekends and summers in the flower department at Colonial Williamsburg. After earning a degree in ornamental horticulture in 1970, she went for a time to Callaway Gardens in northern Georgia, where she oversaw development of the wildflower trail and coordinated designs for the display greenhouses.

As manager of floral services at Colonial Williamsburg, she is responsible for the flower arrangements and holiday decorations. She also conducts workshops and demonstrations, and serves on the plan-

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Libbey Hodges Oliver

ning committee of the annual garden symposium hosted by Colonial Williamsburg and co-sponsored by AHS.

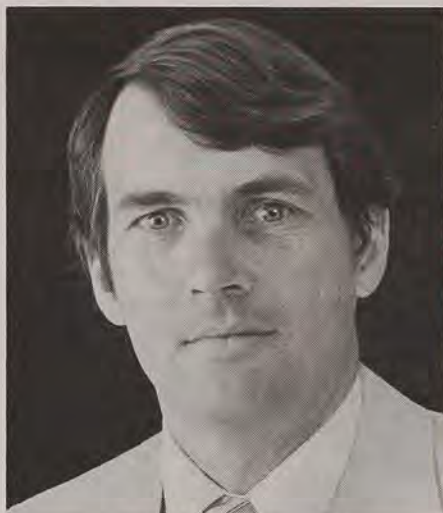
Her book, *Colonial Williamsburg Decorates for Christmas*, was published in 1981. From 1987 until 1992, Oliver and her staff provided Christmas decorations for ABC-TV's "Good Morning America."

Teaching Award

From Socrates to Horace Mann, a trait that often distinguishes great teachers from the merely good is an ability to inspire. For **Allan Armitage**, a horticulture professor at the University of Georgia, that means inspiring people to garden. In his essential reference work, *Herbaceous Perennial Plants: A Treatise of Identification, Culture, and Garden Attributes*, Armitage explores what motivates people to garden: "When gardeners are asked to describe reasons for gardening, three words emerge time and again: Therapeutic, Creative, and Exciting."

Although widely recognized as an authority on perennial plants for the garden, Armitage has concentrated much of his research on new crop introductions, U.S. commercial cut flower production, and the evaluation of both annuals and perennials for the Southeast. At the University of Georgia, he developed the Horticulture Gardens where 100 perennials and nearly 300 annuals are trialed each year. He teaches courses in greenhouse management, greenhouse crop production, and the use and identification of herbaceous perennials.

Besides the weighty *Herbaceous Perennial Plants*, he has published four other books, including, most recently, *Armitage on Perennials*, the first installment in Burpee's Expert Gardeners series. He also edited the Greenhouse Series of books for Timber Press,



Allan Armitage

and is an advisor for the Garden Book of the Month Club. He has contributed material to standardized textbooks and written more than 150 scientific papers and popular articles for magazines and technical journals. Currently, he writes "Tips of the Trade," a monthly column appearing in *Greenhouse Grower* magazine.

In 1990 the Association of Specialty Cut Flower Growers honored Armitage by establishing the Allan Armitage Leadership Award. He has also received the Alex Laurie Award for scientific writing and the Kiplinger Chair from the Ohio State University.

Luther Burbank Award

Last year AHS created the Luther Burbank Award to recognize extraordinary achievement in plant breeding.

This year's winner is **Glenn Goldsmith**, founder, chair, and director of research for Goldsmith Seeds. Goldsmith has introduced selections of popular ornamentals, among them geraniums, dianthus, snapdragons, and marigolds, that are among the most attractive and reliable on the market.

But these hardy annuals didn't spring up overnight like Jack's magic beanstalk, although they do tell a tale of their own—an American success story.

Glenn Goldsmith earned his undergraduate degree in genetics from the University of California-Davis and then completed four years of graduate work in horticulture at the University of California-Los Angeles. He began his career as a plant breeder for Denholm Seed Company in Lompoc, California, in 1954, then served as director of research for PanAmerican Seeds in Colorado for several years.

In 1962 he returned to California to start



Glenn Goldsmith

his own seed company, headquartered in Gilroy. Today this family enterprise has grown into a multinational company employing more than 3,000 workers. Goldsmith has production sites in Guatemala and Kenya and research stations in Gilroy and Andijk, the Netherlands.

Rigorous testing plays a major role in the Goldsmith success story. Goldsmith seed undergoes extensive spring greenhouse trials and summer field trials in which the performance of the new seed is measured against that of varieties already on the market. The seed is next put through its paces by a worldwide network of experimental stations, growers, and seedsmen.

"Quality products through creative research" is the company's motto, a creed reflected in laurels garnered by Goldsmith flower seed, including 17 All-America Selections and 11 Fleuroselect medals.

Landscape Architecture Award

A landscape architect who has practiced for more than 60 years, **Richard Karl Webel** has contributed to prominent public and private projects that should last well into the next millenium.

When Webel and Umberto Innocenti co-founded an architectural firm in 1932, they began by creating ornate landscape designs for then-fashionable Long Island estates. The firm has grown into one of the most sought after in its field, designing and planning municipal, industrial, corporate, and private landscapes on a grand scale.

A sampler of their works would include an American military cemetery in Belgium, *Reader's Digest* headquarters in Pleasantville, New York, and the Greenville-Spartanburg Airport in South Carolina. The Long Island firm has made its bid to



Richard Karl Webel



William R. Marken



Larry Baran

beautify nearby New York City, creating a design for Rector Park in Battery Park City, putting a new wing on the Metropolitan Museum, and refurbishing 30 Rockefeller Plaza. The nation's capital is another showcase for the accomplishments of Innocenti & Webel, which has created master plans for expanding the Washington Mall, the National Zoo, and the U.S. National Arboretum. This multifaceted firm has also worked on some of the country's recreational hotspots: the luxurious Greenbrier Hotel in Sulphur Springs, West Virginia; the Aqueduct and Belmont Park on Long Island and Keeneland Racecourse in Lexington, Kentucky; and a golf course in Jackson Hole, Wyoming.

Innocenti & Webel's design philosophy aims at a modern translation of classical architecture. Their creations emphasize a unity between buildings and surrounding landscapes, use classical proportions, and favor the enduring solidity of stone and brick, resulting in a simple elegance and sense of timelessness.

Communications Award

Thirty years ago, when William R. Marken joined the staff of *Sunset* magazine as just another member of its garden department, native plants were still known as weeds. Today, Marken is the publication's vice president and editor, and attitudes toward native plants have been turned upside down. Especially in the American West, where *Sunset* is on virtually every coffee-table, natives are now an important component of the conservation agenda, offering an alternative to excessive watering and horticultural chemical use.

Marken has led in translating the beauty and utility of these plants to fine

gardeners throughout the readership area of the magazine, which is based in Menlo Park, California. Detailed gardening solutions are offered through the production of regional editions.

Educated at Occidental College in Los Angeles and the University of California-Berkeley, Marken became the magazine's southern California garden editor in 1967 and served in that position for four years before continuing to move up the editorial ladder. He became executive editor in 1982 and assumed his current title in 1984. His leadership in voicing a new garden ethic has benefitted not only his readers but also the rapidly expanding and evolving green industries and millions of acres of the American landscape.

Special Recognition Award

With the help of the man they call "Captain Rainbow," students at Homewood-Flossmoor High School in Illinois have combined floral craft and business acumen to found a thriving enterprise. Their "Star Spangled Tributes"—floral boutonnieres with American flags—accompanied Desert Storm troops and were blasted into space aboard the space shuttle Discovery. Their most recent project, and biggest order to date, was for the 50th anniversary of D-Day celebration in Normandy, France, where 400,000 of the commemorative pins were distributed to veterans.

The manufacturers, marketers, and suppliers of the floral pins are special needs students who have been diagnosed as learning disabled, emotionally disturbed, physically challenged, developmentally delayed, and multiple handicapped. They built their business under the tutelage of Larry Baran, AKA Captain Rainbow.

Hired as a special education teacher by the school in 1980, Baran planned to teach occupational skills to special needs youth through floral design, a sideline to his teaching job. The students, who would come to be known as **Americans with Disabilities in Action, Inc.**, began by filling orders for corsages, boutonnieres, and centerpieces for the school. As their reputation grew, local government, businesses, and community groups sent in orders.

Their big break came in 1988 during the Bush/Quayle inauguration. The students were commissioned to provide floral decorations for the Commerce Building and for a reception held by the vice president. The latter resulted in a visit to Homewood-Flossmoor by the Quayles in April 1989.

Local Horticulture Award

The work of Irving Williams was admired by more than a million people last year—those who saw the First Garden when touring the White House. Williams has been horticulturist there for 44 years—longer than anyone else currently on staff—responding to the different tastes of 10 presidents and first ladies, subtly altering the landscape to reflect ever changing horticultural trends while retaining its historic nature.

The trees planted by each president must be kept healthy, in spite of age, pests, and the vagaries of Washington weather, and the public spaces constantly repaired from the impact of staff, volunteers, and visitors. Although Williams has been guided by some of the top horticulturists in the nation, and periodic redesign and restoration has been sponsored by great patrons, he is the one who has charted the course and professionally managed these very visible grounds.



GARDENERS' INFORMATION SERVICE

Q: Can I bring my caladiums inside during the winter? If so, how should I take care of them indoors until I can plant them outside next spring?

—K.C., Cleveland, Ohio

A: If you would like to save the caladiums in your garden to grow next year, they will need at least three months of dormancy. After the leaves die down, gently lift the tubers from the ground and store them in a container of soilless potting mix. (If you were growing the plants in containers, you can simply take the containers inside.) Store the containers in a cool, dry place. The optimal temperature range is 55 to 60 degrees.

After three or four months, move the

container to a warm location (at least 70 degrees) and begin watering the soil. After all danger of frost has passed and the new foliage has begun to grow, move the plants outdoors to a site in shade or part-shade.

If you want to propagate the plants, lift the tubers from the soil and separate and replant them just before you begin watering the soil again in early spring.

Q: I was just given a Cape primrose as a gift. How do I take care of it?

—M.W., Seattle, Washington

A: Cape primrose (*Streptocarpus* species) is a member of the popular gesneriad family of greenhouse and house plants, which includes African violets, and it can be treated much like an African violet, according to Elvin McDonald, author of *The New Houseplant* and a member of the *American Horticulturist* editorial advisory board. When cared for properly, he says, your plant should bloom on and off for you all year.

These plants have long primroselike leaves with brightly colored tubular flowers. Those most commonly grown as house plants are cultivars of the *S. x hybridus*, such as 'Constant Nymph', 'Good Hope', and 'John Innes'.

These plants like a well-aerated, fertile soil with lots of organic matter such as peat moss or well-decayed leaf mold. You can mix your own or use a commercial African violet potting mix. *Streptocarpus* prefers a small, fairly shallow container. Repot only when the roots begin to get crowded.

Keep the soil evenly moist, but never soggy using water that is room temperature. Cape primroses like moderate room temperatures (70 to 80 degrees) with a slight drop in temperatures at night. Give them a spot in bright, indirect sunlight or under fluorescent lighting. They do best with 12 to 14 hours of light each day but winter's fewer hours of natural light are sufficient during those months.

Plants should be fed about every two weeks with a diluted fertilizer for house plants or African violets. They have hairy

SEND FOR SEED TIPS

The AHS Gardeners' Information Service has a four-page resource bulletin, "How to Save Seeds From Herbaceous Garden Plants." It gives detailed information and tips on how to save seeds, store seeds, and test for germination rates. It is available by sending \$2 with a SASE to: AHS, GIS, 7931 East Boulevard Drive, Alexandria, VA 22308-1300.

leaves that shouldn't get wet.

The cape primrose's most common pests are whiteflies, mealybugs, and red spider mites. Plants are most often propagated by crown division or leaf and stem cuttings.

Q: I saw a picture of a lovely plant called Tritonia. Is this an indoor or outdoor plant and how does one grow it?

—Y. N., Temple Hills, Maryland

A: According to *Bulbs* author John Bryan, a member of the *American Horticulturist* editorial advisory board, there are about a dozen species of this South African genus. They are members of the iris family closely related to *Crocasmia*, and many of them have been reclassified as members of that genus. All have upright, irislike, linear, or sword-shaped deciduous foliage that grows from corms and are commonly called montbretias.

Tritonia species have mostly spiky tubular flowers that come in orange, yellow, red, pink, and white and bloom in early to mid-summer. Species range in height from 12 to 18 inches and are hardy to USDA Zone 7 and sometimes Zone 6 if given good winter protection.

The corms should be planted about two inches deep, in fall if they bloom early and in spring if they bloom late. Give them full

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sun in a deep, well-drained loamy soil with lots of organic matter. Keep soil evenly moist during the growing season but don't let it become soggy or the corms will rot. In areas where the soil freezes, they should be protected with deep mulch or, especially if you have heavy clay that doesn't drain well in winter, lifted and overwintered where they won't freeze. Bryan says it's safe to replant them two to three weeks before the last frost. If your soil is poor the plants will grow, he says, but they won't flower well, so you will want to fertilize them during the growing season.

Q: *This year I planted some perennial chamomile in my herb garden, but the plants all seemed to just burn up. What conditions do they need to grow best?*

—B. G., Cincinnati, Ohio

A: Perennial chamomile, *Chamaemelum nobile*, is hardy in Zones 6 to 9. It prefers full sun but will tolerate a bit of shade. It likes a very well-aerated, rich but gritty and slightly acidic soil.

It's hard to say why your plants died, since this plant is quite hardy and tolerant of most garden conditions. However, chamomile can fail to thrive when subjected to extremes of dryness or moisture. If your soil is very heavy clay, which neither holds water well nor drains quickly when over-watered, your plants may have suffered from both. Herbs are especially likely to die if waterlogged in winter. It is also possible that your chamomile was over fertilized and/or accidentally sprayed with an herbicide.

Q: *What can I do to get larger sweet potatoes? Last year mine grew only about three inches long.* —D. R., Oberlin, Ohio

A: Naturally, since potatoes develop underground, your soil needs to be well-prepared before planting. If your soil is heavy and clayey, double dig the area to be planted and add plenty of organic matter to improve soil structure and aeration. The best option might be to build a mounded or raised bed.

If your soil was too wet, that could have stunted your sweet potatoes' growth and even rotted them. Give your plants a good long soak with about one inch of water each week instead of lighter, more frequent watering. Do not water again unless the soil has dried out eight inches below the surface.

Another problem may have been excessive nitrogen fertilization, which will develop foliage at the expense of potatoes.

Finally, sweet potatoes need about four

and a half to five frost-free months to grow. If you got your potatoes in too late, they may not have had enough chance to develop.

Varieties bred for shorter growing seasons include 'Centennial', a naturally smaller, sweet and tender variety that can be harvested 90 to 100 days after planting, and 'Georgie Jet', a heavy producer of larger potatoes that can be harvested 90 days after planting.

Sources for these two varieties include Ronnigers' Seed Potatoes, Star Route, Moyie Springs, ID 83845; and W. Atlee Burpee, Warminster, PA 18974, (800) 888-1447.

—Maureen Heffernan
Education Director

USE YOUR GIS

The questions on these pages come from members who take advantage of our Gardeners' Information Service, one of the many benefits of membership in the American Horticultural Society. Members can call GIS toll free, (800) 777-7931. Staff and knowledgeable volunteers are available to answer questions from 11 a.m. to 3 p.m. Eastern Time, Monday through Friday, except holidays.



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CONSERVATIONIST'S NOTEBOOK

The War on Woolly Adelgids

The hemlock woolly adelgid (*Adelges tsugae*), an aphidlike insect native to Japan, is killing Canadian hemlocks (*Tsuga canadensis*) along the Eastern Seaboard from Virginia to southern New England, raising fears that entire hemlock forests could be wiped out.

The first reported sighting of the adelgid in North America was in the Pacific Northwest in the 1920s. In 1952 it was first seen on the East Coast in Richmond, Virginia, and since then the infestation has spread north as far as southern Massachusetts and west into Pennsylvania and West Virginia. Because it seems to thrive under cool conditions, scientists fear the woolly adelgid may spread throughout New England and even into eastern Canada.

Mark McClure, chief scientist at the Connecticut Agricultural Experiment Station in Windsor, says the average life expectancy of infested hemlocks is four to six years. "The adelgid is well distributed around the state and we are losing our hemlock forests rapidly," McClure says the infestation is spreading northward at 20 to 25 miles year, and he fears the pace will accelerate as the insect encounters the larger and more continuous hemlock forests and cooler climate in New England.

Keith Watson, an entomologist at Shenandoah National Park in Virginia, says the infestation is one of the most pressing concerns in the park service's eastern region. "Every area in Virginia with hemlocks has the woolly adelgid," he says, "including the Alleghenies, George Washington National Forest, and the Blue Ridge Parkway." Watson says that quite a bit of die-off among hemlocks is already evident at Shenandoah. "This has the potential to result in the loss of all the hemlocks in the park," he says.

Scientists have begun studying whether degradation of hemlock forests will endanger any inter-related species, "but it's too soon to tell what kind of vegetation might take the place of hemlocks," Watson says.

In nurseries and urban gardens, timely applications of horticultural oils and insecticidal soaps have been relatively successful in controlling the adelgid. Such measures are neither effective nor economically viable in the wild, so scientists in affected states are concentrating on finding a natural enemy of the adelgid.

McClure and his colleagues are evaluating two arthropods collected on a 1992 trip to Japan, where the adelgid infests hemlocks but is not a pest. One is an Oribatid mite (*Diapterobates humeralis*) that eats the wool that surrounds adelgid eggs, making them fall to the ground. The other, *Nephus kompirasanus*, is a lady beetle in the Coccinellid family that eats the adelgid and its eggs.

McClure is still awaiting approval from U.S. Department of Agriculture to test the lady beetle in the field, but he released the mite into two forest areas last fall. Despite the severe winter in Connecticut, he says, "the mite was able to survive and even spread. We're very optimistic about its abilities to withstand our climate." He estimates that it will be another year or two before the mite's potential is known, and that may not be soon enough to save Connecticut's hemlock forests. "But hopefully we'll be able to help other areas."

For the long term, one of the most promising projects is a cross-breeding program at the U.S. National Arboretum in Washington, D.C. Denny Townsend, a research geneticist, and Susan Bentz, a horticulturalist, are among researchers crossing Canadian hemlocks with Chinese hemlock, *Tsuga chinensis*.

A survey conducted three years ago by the Morris Arboretum in Philadelphia found that of seven hemlock species hardy in the Northeast, two—*T. chinensis* and *T. diversifolia*—showed little or no sign of infestation by woolly adelgid. *T. diversifolia*, however, showed serious problems with hemlock scale, according to Rick Lewandowski, director of horticulture at Morris.

So far, the cross-breeding program has



Mature woolly adelgids cluster on the underside of a hemlock branch.

produced more than 1,000 seedlings. Townsend says it will take about two years to screen them for resistance to adelgids, but initial results look promising.

Ann Rhodes, director of botany and plant pathology at Morris, says the first signs of adelgid infestation are discolored leaves and early leaf loss. Also, she says, "white, waxy deposits secreted by the insects are quite visible at the bases of needles on the young branches of hemlocks. They look like tiny tufts of wool or cotton."

Mature adelgids are about two millimeters long with spindle-shaped bodies, three pairs of legs, and beaklike mouth parts used to pierce hemlock branches and suck sap directly from the vascular tissue.

Scientists believe the adelgid may also release toxins into the tree through its saliva, as does the related balsam woolly adelgid (*Adelges picea*), a native insect that infests spruce and fir trees.

Adelgids overwinter on hemlocks and begin laying eggs in early spring. A first generation of mobile adelgids, known as "crawlers," hatches in April or May and begins feeding. It is during the crawler stage that adelgids are dispersed, primarily by wind, birds, and animals. A second generation of crawlers hatches in June or July, then the adelgids become dormant until October.

—David Ellis
Assistant Editor





MAIL-ORDER EXPLORER

We-Du Can Do

Growers seeking unusual rock and woodland plants are often hard pressed to find nurseries that stock items such as mosses, sedges, and epimediums. Richard Weaver and René Duval, co-owners of We-Du Nurseries in Marion, North Carolina, have a long track record of offering a wide variety of woodland specimens. We-Du also specializes in plants native to the southeastern United States and their east Asian counterparts. The interest in Asian plants stems in part from Weaver's 13-year tenure as a horticultural taxonomist at the Arnold Arboretum in Boston, Massachusetts.

"The Arnold Arboretum has a very strong tradition in Asiatic botany, particularly in woody plants, of course. So I had been exposed to a lot of Asian woody plants and later got interested in Asian herbaceous plants," says Weaver. He cites the close relationship between east Asian plants and our natives, sundered 60 million years ago by continental drift and glaciation.

Among the offerings in We-Du's catalog are the ferns, species irises, epimediums, and hardy orchids that Weaver and Duval describe as their specialties. "We try to get every species iris that we can," says Weaver, "and we're always trying to find new and unusual things in the native flora of the Southeast—even things that aren't all that showy."

Weaver and Duval formed We-Du in 1981, while both were living in Boston's West Roxbury neighborhood. In 1983, they decided to expand their operation and moved to North Carolina, an area Weaver knew from earning his doctorate in botany at Duke University.

Weaver says the business acumen Duval acquired working with an export firm in Boston proved to be a real asset in setting up the company. He manages the commercial side of the operation but knows the plants equally well, says his partner. "He's found several of our new introductions in the wild. He also does

most of our work with bulbs and ferns."

Boyce Tankersley, horticulture manager for the Missouri Botanical Garden in St. Louis, says he purchases plants from We-Du for the rock garden, temperate house, and English woodland garden there. "They carry quite a number of hard-to-find plants and their depth in some genera is very good. For instance, their epimediums are very interesting to us."

Tankersley also praises Weaver and Duval for offering unique cultivars. "They continue to introduce new plants into the trade, and that's important to us because we want to be a showcase. We're trying to build up an interest in unusual plants, and we like to be able to recommend sources when people ask us where they can get plants."

Sara Stein, author of *Noah's Garden*, has been purchasing from We-Du for several years. "It's just a huge catalog, unlike many specialty nurseries," she says. Among the plants she has bought from We-Du are several varieties of sedges to be used near a bird bath. These include *Carex muskingumensis*, which, she says, "You won't find anywhere else." She has also purchased varieties of skullcaps (*Scutellaria* spp.) and spiderworts (*Tradescantia* spp.) for use on a densely interplanted terrace.

Propagation, mostly from seed, accounts for approximately 80 percent of We-Du's stock, and although they don't do any breeding, Weaver and Duval have introduced about 15 new plants discovered during their forays into the wild. The most recent introduction, *Oenothera speciosa* 'Jerry P', is named for Pittsburgh, Pennsylvania, resident Jerry Pottmeyer, in whose garden Weaver and Duval found the unusual specimen. It differs from the species in having an irregular patterning of spots on its rich green foliage.

Introduced selections also include several varieties of epimediums, with names like 'Milky Way', 'Saturn', and 'Sirius'. An *Iris cristata* selection is called 'Veined Mountain', a local place name. "It's pale blue with orange crests—it's really beautiful," adds Weaver.

Weaver and Duval's penchant for discovering new plants helped earn them the 1993 Marcel Le Piniec Award from the American Rock Garden Society, given to horticulturists who enrich the variety of plant material available to gardeners.

Because We-Du strives for diversity, it cannot always anticipate demand for its more unusual offerings and sometimes has to limit orders on certain items. Fourteen epimediums were listed in the 1993 catalog, but none were offered this year because they can't be propagated that readily, Weaver says. Other plants, such as Japanese wild gingers (*Asarum asperum* and *A. splendens*, for instance), also have on and off years in the catalog, which has botanical line drawings by Weaver scattered throughout.

We-Du's plants are ending up in surprising places, such as wildlife exhibits at the Bronx Zoo/Wildlife Preservation Center in New York City. Robert Halpren, curator of horticulture with the Wildlife Conservation Society, is using We-Du specimens in a number of exhibits, including *Corydalis cheilanthesifolia* in the Himalayan Highland exhibit; a night-blooming daylily (*Hemerocallis citrina*) in the World of Darkness exhibit; the rattlesnake orchid (*Goodyera pubescens*) in the New York Woodlands exhibit in the House of Birds; and *Houttuynia cordata*, a spectacularly colored ground cover native to east Asia, in the public area of a planned Congo Rain Forest section of the zoo.

Designing authentic habitats for animal exhibits is a challenge, says Halpren, that is aided by the diverse offerings of specialty nurseries like We-Du. "We want visitors to understand the context in which the animals live, rather than just to see the animals as knick-knacks, so specialty nurseries become really important to us," he says. "The more useful crayons I have, the better a picture I can color, and a nursery like We-Du gives me a whole bunch of new crayons." —D. E.

For a copy of We-Du's catalog, send \$2 to We-Du Nurseries, Route 5, Box 724, Marion, NC 28752; or call (704) 738-8300 for further information.



1995 Seed Exchange Deadline November 1

Getting to choose up to 15 seeds each year from our Free Seed Exchange is one of the most anticipated benefits of membership in the American Horticultural Society.

The program is made possible by the generous donation of seed from individual members and seed companies. Last year, many members collected seed for the program for the first time. As a result, we set a record for the types of seeds offered—297!

This year we are setting our sights on offering more than 300 types of annuals, perennials, wildflowers, vegetables, herbs, grasses, trees, shrubs, and tropical plants. To reach our goal, we need as many members as possible to participate. No seed is too common or too unusual to be offered. (The only exception is hybrid plants, which have seeds that will not produce a second generation of plants that are true to type.)

Collecting seed is a wonderful way to more

fully observe and understand the complete growing cycle of a plant. It's also a great way to share your garden and love of gardening with fellow members nationwide.

And collecting seed is easy. It's a matter of knowing where the seeds develop on a particular plant and knowing when they are ready to be collected. With most plants it's obvious where the seeds develop, such as inside the fruit or in the flower center. In most plants, the fruiting structure (capsules, pods, and berries) will expand in size and become darker as the seeds mature. In most cases, the seeds themselves turn darker.

Depending on the seed type, there are several methods of separating seed from a plant. Most garden seeds fall into one of three general types:

1. Seed crops—Seeds from seed crops such as corn, peas, or beans can simply be removed from the ears or pods and allowed

to dry. These plants hold their seed for a long time after maturity. Try to harvest seed when it is dry on the crop. Otherwise, cut off stalks or stems and bring them in to dry before removing the seed.

2. Seeds that scatter easily—These seeds scatter easily when they mature. They include seeds of most ornamental annuals, herbaceous perennials, herbs, and green leafy vegetables. They should be closely watched for maturity and preferably should be picked on a dry day. Seeds can be separated from the plant by being run through a screen or shaken in a paper bag.

Another method is to tie a ventilated paper bag around the flower head to catch seeds as they ripen.

3. Seeds encased in fleshy fruit—Seeds encased in a fleshy fruit, like tomatoes, eggplants, peppers, pumpkins, and berries, need only to be separated from the pulp. Let the fruits themselves turn a bit overripe before harvesting them. Then scrape out the fruit's seedy section, add some water to it, and let the mixture sit for a day or two. If the fruit has small seeds they will float to the top. Larger seeds will sink.

After separating the seeds from the pulp, spread them out on paper towels or newspaper in a dry, airy room to fully dry. Larger seeds need at least one week to dry; smaller seeds are usually dry after about four days.

For any type of seeds, the next step after drying is to place them in a plastic bag or envelope. Clearly label each package. We prefer that members send in enough seeds of a particular plant to fill at least 150 small seed packets, but we are glad to accept any amount.

Please complete the seed information sheet on this page and send in one sheet for each type of seed you donate to the program. If you would like more seed information sheets, please copy this one or call (800) 777-7931 to request more copies.

We ask members to try to send in their donations by November 1. If you can't send in the seed itself by that date, you can still participate in the exchange by calling or sending in your information sheet with the types of seeds you can donate. The seeds themselves can be sent in as late as December 1. Again, many thanks to all our members who take the time each year to carefully collect seeds to send into the AHS Free Seed Exchange.

1995 AHS SEED EXCHANGE PROGRAM SEED INFORMATION SHEET

Common name: _____

Latin name (if known): _____

Seeds were collected from:

☐ my garden

☐ other/please describe location _____

Mature height: _____ Flower color(s): _____

Growth habit: _____

Personal comments on growing or using this plant: _____

Seed submitted by: _____

Address: _____

City / State / Zip: _____

Daytime telephone number: _____

Please ship seeds in a padded mailing envelope and label "HAND CANCEL."
Send seeds to: 1995 Seed Program, 7931 East Boulevard Drive, Alexandria, VA 22308-1300.

Please send seeds or let us know what kind of seeds you will be donating to the program by November 1, 1994. Seeds themselves can be sent in as late as December 1, 1994. Thank you!



Waterscaping for the Home Garden

The New York Botanical Garden presents an inspiring program in the art and craft of residential water garden design.

Waterscaping for the Home Garden provides straight-forward, practical ideas and design innovations for home gardeners, landscape designers, contractors, and nurserymen. Five noted speakers share their insights, experience, and passion: **Anthony Archer-Wills, Judy Glattstein, James Lawrie, Dr. William Niering, and Patrick Chassé.**

November 7 – Virginia

The National Wildlife Federation, Vienna, VA

November 8 – New York

The New York Botanical Garden, Bronx, NY

November 10 – Massachusetts

Pine Manor College, Chestnut Hill, MA

November 12 – Georgia

Atlanta Botanical Garden, Atlanta, GA

Symposium 1994 at a 1987 price! Call to register or to receive a complete brochure including workshops:

The New York Botanical Garden, Continuing Education,
718-817-8747, dept. 157 or 1-800-322-6924, dept. 158

Symposium 1994 – *Waterscaping for the Home Garden* is brought to you by The New York Botanical Garden in cooperation with The National Wildlife Federation, Tower Hill Botanic Garden, and Atlanta Botanical Garden.

NY Botanical Garden
200th Street and Southern Boulevard
Bronx, NY 10458-5126

Symposium 1994

**NY Botanical
Garden**

September Seed Giveaway

As we were cleaning out our seed storage bins to make way for our 1995 Free Seed Exchange, we thought our members might like one more chance to choose free seeds from the 1994 selections.

Depending on your climate zone, many of the perennials and some of the vegetables (like the brassicas) and herbs can be sown in early fall. If you are unable to sow seeds in the fall, they can be stored in a cool and dry location to sow next spring.

If you have any questions about these seeds, consult your January 1994 news edition, or call the Gardeners' Information Service at (800) 777-7931 between 11 a.m. and 3 p.m. Monday through Friday.

Indicate up to three selections on the order form and send it to us with a self-addressed envelope affixed with two 29-cent stamps. If we are out of your first choices, we will send substitutes.

Unless otherwise indicated, all seeds need full sun with well-drained soil and should be covered with soil when sown.

Annuals

4. *Antirrhinum majus* 'Tetraploid Mix'. Common snapdragon cultivar. Height: 2½ feet. Narrow, dark green leaves on erect stems and showy, almost orchidlike flowers in a variety of colors. Blooms from midsummer to frost. Sow in warm soil. Do not cover seeds. Pinch young plants back to encourage branching.

17. *Coreopsis tinctoria*. Calliopsis, Plains coreopsis. Height: to 4 feet. Fine, narrow-leaved stems bear flowers up to 2 inches across. These have yellow rays and purplish brown centers. Very elegant. Tolerates poor soils. Sow in warm soil.

38. *Lupinus densiflorus*. Gully lupine. Height: to 3 feet. A bushy plant with palmate leaves and erect racemes of yellow flowers. Flowers have the form typical of the pea family. Will tolerate part sun; does best in cool moist conditions. Soak seeds overnight in warm water or scarify them.

46. *Papaver rhoeas*. Corn poppy, Shirley poppy. Height: 2 feet. Cup-shaped flowers have silky, crimson petals that contrast with the dark centers. Blooms all spring and early summer. Excellent for spring color in borders. Self-sows.

53. *Phlox drummondii*. Annual phlox. Height: 18 inches. Moundlike plants with narrow, pale green leaves that cover them-

selves in clusters of pink, red, lavender, or white flowers all summer.

62. *Tagetes patula* 'Sophia Queen', 'Boy Yellow', and 'Boy Spry'. French marigold cultivars. 'Sophia Queen' grows to 1 foot and has yellow flowers with mahogany flecks. 'Boy Yellow' is a dwarf yellow form, growing to 8 inches. 'Boy Spry', another dwarf, has mahogany outer petals with a yellow crest.

67. *Tropaeolum majus*. Nasturtium cultivar. Donor unsure of cultivar. Rambling, vinelike plant with round, bright green leaves and large flowers in yellow, orange, and red.

71. *Zinnia haageana* 'Persian Carpet'. Mexican zinnia cultivar. Height: 18 inches. Produces mostly double flowers in red, orange, and yellow.

Perennials

72. *Achillea millefolium*. Common yarrow. Height: 2 feet. Flat heads of rich red flowers bloom in summer above feathery dark green leaves. Will rebloom if dead flowers are removed. Good for dried arrangements. Needs full sun. Zone 3-10.

92. *Belamcanda chinensis*. Blackberry lily. Height: 1½-3 feet. Bulb produces orange-red, spotted flowers to 2 inches across. Semi-erect, sword-shaped leaves form a fan. Midsummer flowers are followed by fruit capsules that split to expose shiny black seeds good for dried arrangements. Prefers rich soil. Should be protected during cold winters. Zone 5-10.

115. *Eryngium yuccifolium*. Rattlesnake master. Height: 3-4 feet. Whitish, rounded flowers are 1 inch across. Taller branches are leafless with few bracts. Prefers dry, slightly acid soil and needs a generous topsoil depth to accommodate its long taproot. Performs well in both shady woodland edges and sunny prairie settings. Good for dried arrangements. Difficult to germinate. Cold treat for 2 months. Zone 4-8.

128. *Hosta ventricosa*. Blue plantain lily. Height: 3 feet. Dark green leaves are up to 9 inches long and 5 inches wide. Bell-shaped late summer flowers are violet-blue on 3-foot stems. Needs shade. Zone 3-9.

136. *Liatris spicata*. Blazing-star species. Height: 2-5 feet. Two-foot spikes of 5-14 rosy purple florets bloom on smooth stems. Drought resistant. Winter mulching is recommended in cold climates. Prefers moderately fertile, sandy soils that drain

well in winter. Zone 3-10.

157. *Ratibida columnifera*. Prairie coneflower species. Height: to 3 feet. Hairy, gray green leaves. Flowers have bright yellow, slightly drooping rays and a dark central cone. Zone 4-8.

158. *R. pinnata*. Gray-head coneflower. Height: 3-4 feet. A sparsely leaved, upright branching stalk producing a gray green flower head, which unfurls brilliant, clear yellow rays. Blooms may last all summer. Does best in a loamy soil. Zone 4-7.

160. *Rudbeckia hirta*. Black-eyed Susan species. Height: 2-3 feet. Erect with rounded habit. Blooms summer to fall. Excellent for borders, bedding, and cut flowers. Easy to grow. Full sun to very light shade. Tolerates heat and dry soils. Biennial. Zone 4-8.

161. *R. hirta* 'Gloriosa Daisy'. Black-eyed Susan cultivar. Height: 2-3 feet. Gold, yellow, bronze, orange, brown, and mahogany single flowers are 3-6 inches wide and have center bands of brown, yellow, or black. Full sun to part shade. Prefers a rich, moist soil, but will grow in poor soil. Heat and drought tolerant. Zone 4-8.

166. *Schizachyrium scoparium*. Little bluestem grass. Height: 2-5 feet. A clumping warm-season grass with blue-green foliage and long flower spikes bearing plumelike seedheads in late summer. Fall color ranges from bronze to bright orange. Self-sows and can be invasive. Zone 3-10.

170. *Sorghastrum nutans* (*S. avenaceum*). Indian grass. Height: to 5 feet. An upright, clumping warm-season grass with long, fine leaves and feathery, yellowish panicles that appear in late summer. Turns a burnt orange in fall. Effective in winter. Start in pots and plant outdoors after plants are well-established. Will reseed itself if sufficient moisture is available. Takes 5-7 years to mature. Zone 4-9.

Wildflower Mixes

184. General Purpose Mix. This mixture of annuals, biennials, and perennials is designed to suit all hardiness zones in the lower 48 states. At least 6 hours of sun are necessary. Included are baby's breath (*Gypsophila paniculata*), black-eyed Susan (*Rudbeckia* sp.), catchfly (*Silene* sp.), prairie coneflower (*Ratibida columnifera*), lance-leaved coreopsis (*Coreopsis lanceolata*), calliopsis (*C. tinctoria*), ox-eye daisy (*Leucanthemum vulgare*), common eve-

ning primrose (*Oenothera biennis*), dwarf evening primrose (*O. missouriensis*), blue flax (*Linum perenne*), California poppy (*Eschscholzia californica*), and Siberian wallflower (*Erysimum hieraciifolium*).

186. Southwest Mix. Arizona, southern California, southern Nevada, and New Mexico. Twenty-one species including Tahoka daisy (*Machaeranthera tanacetifolia*), farewell-to-spring (*Clarkia unguiculata*), prairie coneflower, calliopsis, cornflower (*Centaurea* sp.), prairie flax (*Linum perenne* subsp. *lewisii*), flowering flax (*L. grandiflorum*), penstemon (*Penstemon strictus*), California poppy, corn poppy (*Papaver rhoeas*), tidytips (*Layia platyglossa*), yarrow (*Achillea* sp.), and others.

Herbs

220. *Coriandrum sativum*. Coriander. Height: 1-3 feet. Annual. Small umbels of white, rose, or lavender flowers bloom in summer. Both the seeds and the finely divided foliage are used as seasoning.

221. *Eruca vesicaria* subsp. *sativa*. Rocket, rugula. Height: 2½ feet. Annual. White flowers have purplish veins. Dark green leaves have a strong, peppery flavor and should be picked when 4-6 inches long. Prefers light, rich soil. Quick growing and will tend to bolt in midsummer, so it's best to plant in early spring and again in early fall.

225. *Hedeoma pulegioides*. American pennyroyal. Height: 6-18 inches. Annual. Many branching stems give the plant a shrubby appearance. Small bluish purple flowers appear in summer. Said to repel insects. Crushed leaves may be rubbed on the skin to ward off mosquitoes. Sometimes strewn in doghouses in the hope of keeping down fleas, or used in sachets to keep moths from woolens. Also used as a tea. Will tolerate some shade. Does best in poor soil: rich soils diminish its aromatic properties. Seedlings should be thinned to 4-6 inches.

231. *Poterium sanguisorba*. Burnet. Height: 1-2 feet. Perennial. Small white or rose-colored flower clusters appear in early summer. The finely cut leaves, bunched at the base of the plant, have a cucumberlike flavor. Use them in salads, vinegars, and sour cream dip. Needs a dry, sandy, alkaline soil. Will not tolerate rich or poorly aerated soils. Zone 3-10.

Vegetables

233. *Brassica juncea*. Spinach mustard. Height: 10-12 inches. Thick glossy leaves are spicy and crisp and can be eaten raw. Pick them when they're 3-4 inches long. Productive throughout the growing sea-

son. Can be used as a winter crop south of Zone 7.

234. *B. juncea*. Chinese broadleaf mustard. Height: 1½ feet. Broad, bright green oval leaves are tender and very mild tasting. Matures in 45 days. Sow in spring and fall. Plant seeds ½ inch deep about 18 inches apart.

235. *B. juncea* var. *crispifolia* (*B. japonica*). Chinese potherb mustard. Height: 1 foot. A very mild-tasting oriental green with elegant, feathery foliage. Fast-growing. Harvest young leaves or more mature heads. Will produce greens throughout the growing season.

236. *B. napa*. Siberian kale. Height: to 3 feet. Upright plant with frilly, reddish purple-veined leaves and yellow-orange flowers. Matures in 50 days. Can be grown as a winter crop south of Zone 6.

238. *B. rapa*. Chinese cabbage, pak choi. Height: 1½ feet. Important in Asian cuisine. Flat, narrow leaves surround a white stalk. Both leaves and stalk are crisp and mild flavored. Matures in 50 days. Since this is a short-season crop, resow every 3 weeks or so. Will bolt in hot weather. Mulch to keep the soil cool.

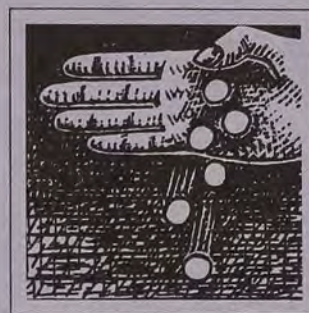
250. *Cucumis sativus* 'Straight Nine'. Cucumber cultivar. Very uniform, dark green 9-inch fruit. Mildew tolerant. Matures in 65 days.

264. *Phaseolus vulgaris* 'Jacob's Cattle' or 'Trout Bean'. Bush bean cultivar. The beans, speckled maroon and white, are used dry for soups and baking. Matures quickly. Sow in warm soil.

270. *Pisum sativum* var. *macrocarpon* 'Dwarf Green Sugar Pea'. Pea cultivar. 2-3-inch pods on 3-foot vines. Pods should be picked before they swell. Matures in 65 days. Peas do best in a cool, moist situation. Sow them as soon as the ground can be worked and again in late summer for a second harvest. Moisten the seeds, then plant them in trenches about 1½ inches deep. Space the seeds about 2 inches apart. Stake when plants are a foot tall.

279. *Zea mays* 'Jo Chief'. Sweet corn cultivar. Height: 6½ feet. This All-America Selections winner produces 10-inch ears of sweet yellow corn. A low-water variety that matures in 89 days. Corn does best in rich, well-aerated sandy soil. To improve pollination, it's best to grow corn in blocks rather than in one or two rows. Sow in warm soil.

281. *Z. mays* 'Super Sweet Hybrids'. Sweet corn cultivar. Large, yellow ears with up to twice the sugar of ordinary sweet corn. Matures in 80 days. Cross-pollination with other corn varieties may affect yield: sow at least 350 feet from other varieties. For culture, see 'Jo Chief'.



HOW TO ORDER

- ◆ List up to three selections by number only.
- ◆ List substitute selections by number only.
- ◆ All orders must be received by November 1, 1994.
- ◆ Keep this catalog! You will need it to identify the seeds you receive. Seed packets will be identified only with the numbers that appear in the catalog.

ORDER FORM

AHS member number _____

Name _____

Address _____

City _____

State _____

Zip _____

List selections by number only:

1. _____
2. _____
3. _____

Substitutes:

1. _____
2. _____

Send this order form and a self-addressed, legal sized (#10) envelope affixed with 58 cents postage (two 29-cent stamps) to: AHS Seed Giveaway, 7931 East Boulevard Drive, Alexandria, VA 22308-1300.



AHS BULLETIN BOARD

GALA AUCTION TO BENEFIT RIVER FARM

On October 14 the American Horticultural Society's River Farm headquarters will be the setting of a flower-filled, fund-raising Gala, "The World Is Your Garden." The event coincides with the AHS Annual Meeting so that members from around the country can join in the celebration of this historic property that is also a managed natural refuge.

The Gala's Honorary Chairman is Enid A. Haupt, through whose generosity River Farm became the national headquarters of AHS in 1972. Proceeds of the evening will be devoted to the restoration of River Farm both as an historic property and as a center for horticultural and environmental education.

The Gala will open with a cocktail buffet, during which guests will have the opportunity to experience River Farm—27 acres of lawns, gardens, meadows, and

woods on the banks of the Potomac River. Over the last 20 years the Society has established ornamental, educational, and test gardens on portions of River Farm, but much of the property remains much as George Washington would have known it when it was the northernmost tract of his farmland surrounding Mount Vernon.

Earlier in the day, floral designer René van Rems of Gold River, California, will direct local garden club members in arranging masses of flowers donated to the Gala by the California Cut Flower Commission. He will be present at the Gala to meet guests.

The evening will feature both silent and live auctions. A benefit committee is gathering an array of fabulous items, all donated by friends of AHS across the country. The catalog already includes a Wyoming ranch vacation, fine art, and antiques as well as a variety of horticultural and floral items.

If you have a special retreat, collectible, or other item to contribute, or you want more information about the Gala, call Stephanie McLellan at (800) 777-7931.

INTERNATIONAL AIRMAIL OFFERED

Members living in Canada and overseas now have the option of receiving their publications significantly sooner by using international airmail. The additional cost of this service is \$33 a year. International members interested in obtaining this service should check the appropriate box on their renewal notices.

The new service should reduce delivery time to foreign destinations from five to 10 weeks to five to 10 days. Paul James, mailing requirements manager for the William Byrd Press, Inc., says that second class mail travels by boat, but the mail service will fly AHS publications to the nearest city in the member's country that has an airport. "In other words, it flies as far as possible."



CLIP A COUPON, SAVE A TREE

The American Horticultural Society routinely sends three renewal reminders to those whose memberships are about to expire. If you find this unnecessary, you'll be pleased to know that you can take a step toward uncluttering your mailbox by clipping the coupon below and returning it to us, or by calling to inform us that you do not need three mailings. In the future, you'll receive only one notice, in the month that your membership is due to expire. You'll save natural resources, as well as financial resources that support AHS programs. Send the coupon to: 1 Renewal Notice Dept., AHS, 7931 East Boulevard Drive, Alexandria, VA 22308-1300, or call (800) 777-7931.

☐ Yes! Please send me only one renewal notice.

Name: _____
Address: _____
City: _____
State/Zip: _____



Robert D. Volk

BOARD NOMINEES

Nominated to join the American Horticultural Society's Board of Directors at its October meeting are:

Robert D. Volk of San Marino, California, is a director of the Men's Garden Club of Los Angeles.

His interest in gardening has led to his membership in the Southern California Horticulture Society and the Friends of Pacific Horticulture, as well as AHS. Volk also served on the board of the Descano Gardens Guild.

Volk and his wife, Carolyn, greatly enjoy visiting gardens when they travel, resulting in many lasting friendships throughout the United States and England. Currently they are creating a native woodland garden at their rustic summer retreat on a small island north of Seattle.

Mrs. Sellers J. (Nancy) Thomas Jr. of Houston, Texas, is currently the Garden Club of America president and the chairman of the group's Long Range Planning Committee. She has served in various offices of the Garden Club of America as well as the Garden Club of Houston.

A graduate of Tulane University, Sellers is equally involved in civic activities, serving on the boards of Sheltering Arms, the Child Guidance Center, the Junior League of Houston, and Kinkaid School. Sellers is also active in historic restoration projects.

VOLUNTEERS REPRESENT AHS AT FLOWER SHOWS

This year for the first time, members of the American Horticultural Society served as volunteers at regional flower shows, educating visitors about AHS programs and encouraging them to join the Society.

AHS membership director Darlene Oliver worked alongside volunteers at the Cincinnati Flower Show, to which Society members were given free admission. She believes that the shows provide a golden opportunity to reach out to people with an avid interest in horticulture who may not be aware of AHS, and hopes to duplicate this cooperative arrangement at many more shows in 1995. "We have a great time," she said. "Thousands of visitors stopped by the AHS booth and were given information and sample publications. The drawings that we held every day for free memberships were a real crowd pleaser."

The Cincinnati show is the only flower show in the United States to be sanctioned by the Royal Horticultural Society in England, sponsors of the famous Chelsea Flower Show. Sponsors were the city's Provident Bank, the *Cincinnati Enquirer*, and AAA Cincinnati.

Attended by 30,000, it featured an AHS-members-only reception with author and PBS "Victory Garden" host Roger Swain. "It was a thrill for me to be able to meet Roger and talk with him," said AHS member Linda Sterritt. "He proved to be an engaging host in addition to being able to answer every question thrown at him."

Member Nancy Repper served as a volunteer at the AHS booth. "Getting to explain what AHS is all about to so many people was truly rewarding," she says. Those who signed up on the spot were

given an AHS gardening hat and of course, invited to the Roger Swain reception.

The free membership drawing was also a hit at the Maine State Horticultural Show, where visitors were told of AHS member benefits and given sample informational materials. "I think the biggest selling point was the horticultural help-line," the Gardeners' Information Service, said volunteer Richard Dubé. "The most common question was 'Will this plant do well in my area?' since Maine goes from USDA Zones 7 to 3, coming in from the coast," Dubé said.

Three couples volunteered to help at the Maine show. Don Winslow, who is a member through the Society's Horticultural Partners affiliate, the Association of Professional Landscape Designers, recruited his wife, Fran, as well as other volunteers, including Dubé, another APLD member.

James and Natica Satterthwaite found the experience to be not at all taxing. "We worked on Thursday, the day it opened, so there was not as big a crowd," said Natica Satterthwaite. "Everything was set up when we got there. We were able to say 'Hi' to a lot of friends."

Merle Bacastow is a retired internal medicine specialist who worked at the show with his wife Louise. An AHS member more than 40 years, he is now taking horticultural classes at a local technical college, and enjoyed introducing fellow students to AHS. He found that many of those young people, and older gardeners as well, were not familiar with AHS. "It's like starting a practice," the doctor said. "If you do good things, people come back to you."



COURTESY OF LINDA STERRITT

PBS "Victory Garden" host Roger Swain and AHS member Linda Sterritt.

FLOWER SHOW AWARDS

Since the deadline for our last regular issue in May, the American Horticultural Society has given a number of awards to exhibitors at flower shows around the country.

At the Del Mar Fair Flower and Garden Show in southern California in June, the AHS Flower Show Citation was given to "Paradise II," designed by Mo Halawi of Weidners' Gardens. The design featured topiary sheep by Pat Hammer of Samia Rose Topiary, a stone ram, and huge tuberous begonias, in addition to a spectacular array of other plants. The award was presented by AHS Board Member Paul Ecke Jr.

At the Garden Club of America (GCA) "Show of Summer" at the Chicago Botanic Garden, also in June, the award went to "To the Prairies," sponsored by the Garden Club of Barrington (Illinois) and designed and planted by Cinder Dowling and Susie Rider. The design was seen as an ecologically sensitive demonstration of the beauty that can be achieved by using plants native to the prairie. The award was presented by AHS member Violet Dawson, past president of the GCA.

At the Cincinnati Flower Show, the AHS Citation went to Mountain Laurel Nursery for its rendition of a cool, lush woodland retreat, featuring a quiet place to sit and contemplate a "weeping" rock wall inspired by those that seep spring water in the North Carolina mountains.

The exhibits were chosen for best demonstrating the bond between horticulture and the environment and inspiring viewers.



DON WINSLOW

Fran Winslow hands out a membership brochure at the Cincinnati show.



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GARDEN ART PRESERVES SEASONS

Beginning September 15, visitors to the American Horticultural Society's River Farm headquarters can stroll not only through its gardens but also through the imaginations of more than two dozen artists and photographers. Through October 18, their paintings, drawings, photographs, prints, and sculpture will be on display for free at the fourth American Floral Show.

While gardens change constantly with the seasons, art captures one moment in time, as Steve Kennedy has done with the apple tree and flower beds in his back yard.

A still-life can be viewed as a garden through which one can visually meander at any time. Peter Thrasher uses his still-life paintings to bring the bounty of nature indoors, and Diane Testler's painted 1940s tablecloths draw the viewer into an intimate, bygone world.

Claude Monet, William Morris, and Gertrude Jekyll were both artist and gardener. In either case, light is used to create patterns with variations in space, form, and color. In this show, Geri Gordon's color-field paintings reflect such relationships.

Garden vignettes also give viewers a sense of someone else's private space. Such feelings are conveyed in Frank Wright's painting of the marshes he has wandered since childhood; in John Park's tiny enticing paintings of public and private English gardens; in Jean Cameron's delicate yet intense photographs of a water spirit in her woods; and in Kathy Kelly's bee's-eye views of individual flowers around her pond.

Finally, sculpture adds another dimension to the show, with Bruno Lucchesi's flower bas-relief and Alan Glasser's frog, either of which would be as at home in the garden as indoors at the show.

The opening reception is September 15 from 5 to 8 p.m.

—Danni Dawson
American Floral Show Curator



*American Floral Show print by U.S.
 Bureau of Engraving artist Tom Hipsoben.*

AMERICAN HORTICULTURAL SOCIETY PUBLICATIONS SURVEY

DEAR FRIEND:

Those of us at the American Horticultural Society want to provide you with information that aids, enriches, and expands your gardening activities. In addition, we hope to keep you abreast of the newest research, ideas, and trends in the world of horticulture and gardening. One of the best ways to do this is with our publications, *American Horticulturist* magazine and *American Horticulturist* news edition.

You can help us better focus on these goals and your needs as a reader of the publications by taking a few minutes to answer the attached survey. This survey information will be used to evaluate and improve our publications. Since all of the information is confidential, we would encourage you to fill out the "about you" portion of the survey, and to make additional comments and suggestions. We do not expect you to give your name, although you can if you wish.

Thank you on behalf of the American Horticultural Society for taking the time to respond to these questions.

Sincerely,



Kathleen Fisher, Editor, *American Horticulturist*

Please answer every question, if possible, and feel free to comment at any time to any question on the survey. Space has been left at the end of the survey for you to address any points that we may have overlooked.

1. Do you read either *American Horticulturist* magazine or *American Horticulturist* news edition on a regular basis? (Please check your response.)

☐ Yes ☐ No ☐ Infrequently

2. If yes, how long do you usually spend with each, to the nearest quarter-hour?

Magazine ____ hours News Edition ____ hours

3. Which publication appeals to you more? (Please check your response.)

☐ Magazine ☐ News Edition

4. At what level would you characterize your gardening expertise? (Please check your response.)

- ☐ Novice amateur
- ☐ Experienced weekend gardener
- ☐ Dedicated, advanced hobbyist
- ☐ Novice professional horticulturist
- ☐ Experienced professional horticulturist

5. What is the focus of your gardening activities? (Please check your response.)

- ☐ Collection of certain plants
- ☐ Maintaining home landscape
- ☐ Evolving home landscape
- ☐ Estate garden
- ☐ Indoor or patio gardening
- ☐ Observing plants in nature and public gardens

6. What kind of information do you look for in gardening magazines? (Check as many as apply.)

- ☐ Step-by-step gardening instructions
- ☐ Plant recommendations
- ☐ Natural history
- ☐ Landscape design ideas
- ☐ Profiles of gardening experts
- ☐ Horticultural history
- ☐ Environmental awareness
- ☐ Descriptions of public gardens
- ☐ Philosophical essays

7. What areas of gardening would you like to learn more about? (Check as many as apply.)

- ☐ Good plant/flower combinations
- ☐ Easy landscaping projects
- ☐ Gardening for color
- ☐ Basic lawn care
- ☐ House plants
- ☐ Annuals
- ☐ Perennials
- ☐ Vegetables, other edibles
- ☐ Herbs
- ☐ Trees and shrubs
- ☐ Roses
- ☐ Other specific plant _____
- ☐ Structural design (protective barriers, fencing)
- ☐ Architectural design (pools, ponds, outbuildings)

8. What are your gardening problems? (Check as many as apply.)

- ☐ Lack of time (Current hours per week ____.)
- ☐ Limited budget
- ☐ Limited knowledge
- ☐ Poor soil
- ☐ Climate: Specify _____
- ☐ Too little sun
- ☐ Difficulty in plant selection
- ☐ Other _____

9. Would you like any of the following from AHS publications?
(Check as many as apply.)

- ☐ "Before and after" garden landscape stories
- ☐ A regular column about native plants
- ☐ A regular column for novice gardeners
- ☐ A regular column for professionals
- ☐ A regular column on environmental issues
- ☐ News about Society events
- ☐ News about Society leaders
- ☐ Other _____

10. Where do you usually get your gardening ideas? (Check as many as apply.)

- ☐ From other people's gardens
- ☐ I come up with them myself
- ☐ Magazines
- ☐ Books
- ☐ From a professional
- ☐ Other _____

11. Publications can be valuable in a number of ways. Rate the following from 1 to 5, with 1 being “strongly agree” to 5 being “strongly disagree”:

I find AHS publications informative	1	2	3	4	5
I find AHS publications inspiring	1	2	3	4	5
I find AHS publications entertaining	1	2	3	4	5
I find AHS publications useful	1	2	3	4	5
AHS publications are the main reason to belong to the Society	1	2	3	4	5

12. Information about you and your family. For purposes of tabulation, please fill in the information below. *All information is strictly confidential and will be used only to improve our editorial product.*

Your sex:

- ☐
- Male
- ☐
- Female

Your education:

- ☐ Completed high school
☐ Some college
☐ Graduated college
☐ Post graduate
☐ Other _____

Your age:

- ☐ Under 18
☐ 18 - 24
☐ 25 - 34
☐ 35 - 44
☐ 45 - 54
☐ 55 - 64
☐ 65 or older

Age groups in which you have children living at home:

- ☐ Under 6
☐ 6 - 12
☐ 13 - 17
☐ 18 or older

Household income:

- ☐ Below \$25,000
☐ \$25,000 - \$50,000
☐ \$50,000 - \$75,000
☐ \$75,000 - \$100,000
☐ Over \$100,000

AHS member:

- ☐ Yes How long? _____
☐ No

13. Please make any additional comments or suggestions below:

[illegible]

Return to Kathleen Fisher, Editor, *American Horticulturist*, 7931 East Boulevard Drive, Alexandria, VA 22308-1300.

Thank you!

NEW RELEASES

Ferns

Gillian Dunk

Hardcover. Retail price: \$30. AHS price: \$27.

Book code: HAR 901

This book is filled with information about ferns—their history, folklore, the structure and lifecycle, pests and diseases and how to combat them without harsh chemicals, how to successfully propagate and grow them, and a list of over 200 species of ferns readily available throughout the world. 1994. 183 pages.

Color Encyclopedia of Garden Plants and Habitats

Fritz Kohlein and Peter Menzel

Hardcover. Retail price: \$49.95. AHS price: \$44.95.

Book code: TIM 912

This new full-color book, with 1,160 photos, illustrates 40 typical habitats to be found or created within the garden. Each of the 1,100 plants described—perennials, annuals, ferns, and grasses—is keyed to appropriate habitats and illustrated in color. 1994. 320 pages. (Available in October.)

Ferns for American Gardens

John T. Mickel

Hardcover. Retail price: \$60. AHS price: \$54.

Book code: PRE 902

This authoritative book on outdoor fern cultivation has over 360 color photos and 30 line drawings, and catalogs more than 400 types of ferns in an easy-to-use alphabetical format listing habit, foliage, and habitat, as well as method of culture and propagation, and suggestions on garden use and plant combinations. *Ferns for American Gardens* will be the standard reference on the subject for years to come. 1994. 370 pages.

Complete Book of Companion Gardening

Bob Flowerdew

Hardcover. Retail price: \$34.95. AHS price: \$31.45.

Book code: TRA 903

This is a comprehensive and inspiring book based on years of experience observing companion effects firsthand, with the goal of creating a garden that thrives naturally and is

interesting and colorful all year round. It is full of imaginative ideas, supplemented by useful lists of plants that are suitable for the garden, or that thrive well together. An excellent volume on design considerations with an organic gardening philosophy. 1994. 176 pages.

Evening Gardens: Planning a Landscape to Dazzle the Senses After Sundown

Cathy Wilkinson Barash

Softcover. Retail price: \$19.95. AHS price: \$17.95.

Book code: GAR 911

This volume covers flowers that glow at sunset, night-blooming flowers, how to light an evening garden, sample plans, and much, much more. Includes full color photos. 1994. 176 pages.

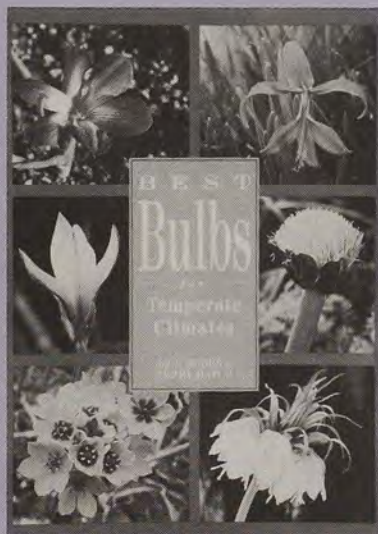
Best Bulbs for Temperate Climates

Jack Hobbs and Terry Hatch

Hardcover. Retail price: \$32.95. AHS price: \$26.50.

Book code: TIM 9;13

This book includes many unusual species from South Africa and South America along with representatives of better-known genera—all chosen because they are considered worthy garden subjects. The book comprises descriptions and detailed cultural information on more than 120 genera and 800 species and cultivars; each genus is illustrated with at least one color photo, making this an invaluable reference work as well as an inspiration. 1994. 176 pages.



The Organic Gardener's Home Reference

Tanya Denka

Softcover. Retail price: \$29.95. AHS price: \$26.95.

Book code: GAR 904

In an easy-to-read chart format, this book contains information for growing, harvesting, and storing over 60 types of vegetables, fruits, nuts, and herbs in an organic, environmentally responsible manner. It features helpful advice and tips for both novice and expert on how to control over 150 garden pests safely and simply. 1994. 288 pages.

Waterscaping: Plants and Ideas for Natural and Created Water Gardens

Judy Glattstein

Softcover. Retail price: \$18.95. AHS price: \$17.

Book code: GAR 910

Glattstein covers every aspect of creating and maintaining a natural water landscape including: appearance, growing requirements, and characteristics of popular water plants; techniques and supplies for installing manufactured pools; landscaping naturally wet areas. Full color photos and dozens of line drawings make it easy. 1994. 192 pages.

The Gardener's Bug Book: Earth Safe Insect Control

Barbara Pleasant

Softcover. Retail price: \$9.95. AHS price: \$8.95.

Book code: GAR 905

This new garden guide shows how to identify and control more than 70 common garden insects using the best homemade and commercial control strategies. Topics include bug behavior, insect characteristics, and specific recommendations for environmentally sound pest-fighting remedies. 1994. 160 pages.

The Wild Garden

William Robinson

Hardcover. Retail price: \$24.95. AHS price: \$22.45.

Book code: TIM 917

Originally published in 1870, *The Wild Garden* remained in print for more than 50 years. Its message was revolutionary. Robinson used his estate to experiment with his design theories, and the measure of their success is that after decades of neglect, the plantings in the wild areas are flourishing. Robinson commissioned

GARDENING BOOKS

Alfred Parson to illustrate a deluxe limited edition published in 1895, from which this facsimile is printed. Judith Tankard provides an introduction; Peter Herbert, present owner of the estate, describes the restoration of the gardens; and Graham Stuart Thomas has provided an index of up-to-date nomenclature of the plants described in the book. 1994. 356 pages.

Treasures of the Royal Horticultural Society: 350 Years of Botanical Illustration

Brent Elliott

Hardcover. Retail price: \$39.95. AHS price: \$35.50.

Book code: TIM 914

Botanical art brings artistic values to the scientific task of documenting plant structures as precisely as possible. Even in an age of great advances in photographic techniques, botanical illustration remains important. The Lindley Library of the RHS has some 18,000 drawings and paintings by eminent botanical artists of all periods. *Treasures of the Royal Horticultural Society: 350 Years of Botanical Illustration* represents some of the rarest and most beautiful, many never before published, and all reproduced from original works. The works themselves will be exhibited on a tour of several U.S. cities in 1995. 1994. 160 pages.

Succulents: The Illustrated Dictionary

Maurizio Sajeve and Mariangela Constanzo

Hardcover. Retail price: \$39.95. AHS price: \$35.95.

Book code: TIM 916

Succulents: The Illustrated Dictionary is a beautiful reference that contains color photos of more than 1,200 species and varieties from 195 different genera. A brief description, including family, growth habit, appearance of leaves and flowers, native habitat, and the author who published the present name, accompanies each photo. The authors draw special attention to plant conservation and make note of which plants are listed as endangered. A chapter is provided on all families containing succulent species, with special emphasis on the genera illustrated in the book, making it the ultimate reference for succulent lovers. 1994. 240 pages.

The American Garden Guides

Compiled by the most respected botanical gardens and arboreta in North America, *The American Garden Guides* cover all you need to know to design, plant, and cultivate herbs, vegetables, perennials, shrubs, and vines anywhere in the United States and Canada. We offer these titles:

Herb Gardening

Cornell Plantations, Berkeley Botanical Garden, and Matthaei Botanical Gardens

Softcover. Retail price: \$25. AHS price: \$22.50.

Book code: GAR 906

Vegetable Gardening

Callaway Gardens

Softcover. Retail price: \$25. AHS price: \$22.50.

Book code: GAR 907

Perennial Gardening

The New York Botanical Garden

Softcover. Retail price: \$25. AHS price: \$22.50.

Book code: GAR 908

Shrubs and Vines

The Holden Arboretum, Royal Botanical Gardens, and Chicago Botanic Garden

Softcover. Retail price: \$25. AHS price: \$22.50.

Book code: GAR 909

550 Perennial Garden Ideas

Derek Fell and Carolyn Heath

Hardcover. Retail price: \$30. AHS price: \$27.

Book code: SIM 915

Their long-lasting beauty, easy maintenance, and great variety make perennials a tremendous favorite. Filled with 550 exceptional color photos of gardens from all regions of the country, *550 Perennial Garden Ideas* will make it easy for gardeners to adapt perennials to their own situations. The text and detailed captions provide specific information on cultivating with perennials, seasonal and regional differences, designing for formal and informal gardens, and working with the top perennial plant families. 1994. 192 pages.

The Garden in Flower Month by Month

John Kelley

Hardcover. Retail price: \$24.95. AHS price: \$22.45.

Book code: TRA 925

A year-round succession of color is all-important in creating a garden full of interest and here is a wealth of information in a clear, easy-to-use, month-by-month guide. Each chapter in *The Garden in Flower Month by Month* provides an introduction to the garden at that time of year. Instructions and checklists for seasonal tasks, profiles of plants in flower—including trees and shrubs, annuals and perennials, bulbs and climbers—and suggestions for planting schemes and groupings to suit every taste and situation. 1994. 160 pages.

REFERENCE

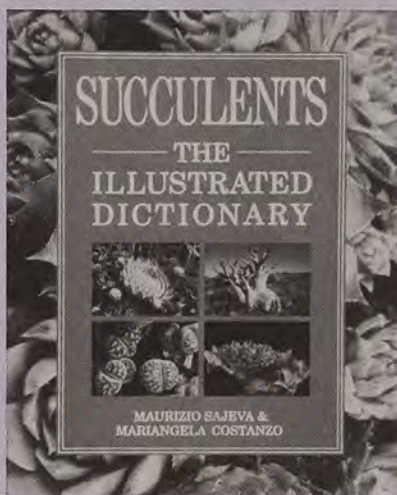
Pests of Landscape Trees and Shrubs: An Integrated Pest Management Guide

Stephen H. Dreistadt, Ph.D.

Softcover. Retail price: \$32. AHS price: \$28.50.

Book code: ANR 922

This is the most comprehensive and authoritative book ever written on managing landscape pests, making it indispensable for landscape managers and home gardeners alike. The emphasis is on environmentally safe, less toxic IPM methods, with details of how to use these new methods to



design your own pest management program. Compiled and edited by scientists at the University of California's Statewide IPM Project, it draws on the expertise of more than 40 university and professional pest management and horticultural specialists. 1994. 325 pages.

Manual of Herbaceous Ornamental Plants

Steven M. Still

Hardcover. Retail price: \$48.80. AHS price: \$43.50.
Book code: STI 509

This new fourth edition includes 384 color photos and is a "must have" reference volume. It was the first guide to herbaceous plants to be organized so that the student of plants as well as the consumer could find easy reference to such information as morphology, growth habit, season of bloom, propagation, diseases and insects, hardiness, and suggestions for plants in specific sites. The book provides both scientific and common name indexes. 1994. 814 pages.

The American Horticultural Society Encyclopedia of Gardening

Edited by Christopher Brickell

Hardcover. Retail price: \$59.95. AHS price: \$49.95.
Book code: GAR016

With 3,500 illustrations, including 400 series of step-by-step photos, *The American Horticultural Society Encyclopedia of Gardening* is the only gardening guide you'll ever need. This 648-page companion volume to *The American Horticultural Society Encyclopedia of Garden Plants* is packed with basic and advanced gardening techniques—everything from transplanting to hybridizing—and includes practical and informative tips on creating and maintaining your garden. Recipient of the 1994 Award of the Year from the Garden Writers' Association of America. 1993. 648 pages.

The American Horticultural Society Encyclopedia of Garden Plants

Edited by Christopher Brickell

Hardcover. Retail price: \$49.95. AHS price: \$42.50.
Book code: GAR 006

A comprehensive, up-to-date, and lavish guide to garden plants, this extensive encyclopedia includes over 8,000 plants, 4,000 of which are featured in exquisite full-color photographs. Writ-

ten by a team of plant experts, *The American Horticultural Society Encyclopedia of Garden Plants* is designed to be the gardener's bible; a standard work of reference for every gardening bookshelf. 1989. 608 pages.

The Wise Garden Encyclopedia

Edited by E.L.D. Seymour

Hardcover. Retail price: \$45. AHS price: \$40.
Book code: HAR 923

Long considered a classic in its field, this unique gardening encyclopedia has been expanded, revised, and updated. The nearly 5,000 entries cover every gardening subject imaginable, including annuals, perennials, bulbs, grasses, and ground covers, companion planting, fruits and vegetables, propagation, insects, and much, much more. 1990. 1,062 pages.

Hortus Third

Staff of L.H. Bailey Hortorium,
Cornell University

Hardcover. Retail price: \$150. AHS price: \$135.
Book code: MAC 333

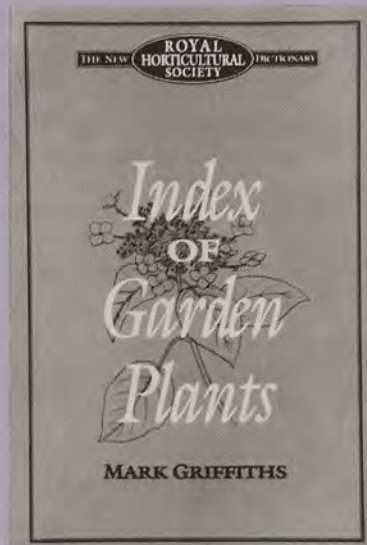
Hortus Third is unique in the field of North American horticultural literature. Written from a botanical point of view for the horticultural community, this classic work is a record of the astonishingly rich and diverse flora of cultivated plants of the United States, Canada, and Mexico. 1976. 1,290 pages.

The Hillier Manual of Trees & Shrubs

Compiled by Hillier Nurseries

Hardcover. Retail price: \$39.95. AHS price: \$35.95.
Book code: TRA 924

This completely revised and updated sixth edition includes over 1,400 new plant entries, providing detailed descriptions of more than 9,000 trees, shrubs, conifers, climbers, and bamboos, representing over 650 genera. There is advice on choosing plants for specific situations, notes on plant hunters, a botanical glossary, and many other essential reference features. Essential reading for beginners and experienced gardeners alike. No serious enthusiast should be without a copy. 1994. 704 pages.



The New Royal Horticultural Society Dictionary Index of Garden Plants

Mark Griffiths

Hardcover. Retail price: \$59.95. AHS price: \$53.50.
Book code: TIM012

Based on the four-volume set, *The New Royal Horticultural Society Dictionary of Gardening*, this index supplies authoritative names for more than 60,000 ornamental and economic plants. The correct identification and naming of plants is of ongoing concern to gardeners and horticulturists. Progress in botanical research leads to changes in nomenclature, and this volume uniquely reflects the current state of taxonomy. Plant names familiar to gardeners are retained as cross references. Each of the plants named is described concisely, including range and hardiness ratings. All who are involved with plants and gardens will find this book an excellent reference guide. 1993. 1,200 pages.



Private Gardens of England

Penelope Hobhouse

Hardcover. Retail price: \$40. AHS price: \$36.
Book code: CRO 918

This is a visual celebration of 33 of England's most impressive private gardens. With the exception of a few

GARDENING BOOKS





PLANTS AND YOUR HEALTH

A "Can-Do" Garden

By *Linden Staciokas*

The nadir of my gardening experience came one afternoon in 1988. I had been sick all spring, my arthritic spasms drowned out for once by the exhausting effects of a genetic heart defect gone suddenly mad. Only 36, I was unfit for work, let alone for the rigors of planting. But I was determined to put in my potato patch.

My husband found me there some four hours later, lying in the dirt because I didn't have the strength to get up. "You can't go on like this," he said, sinking down beside me. "You have to change something . . . your expectations, or what you plant, or the way you garden . . . something."

Yet, deliberately making the process easier seemed almost blasphemous to this daughter of Lithuanian farming peasants. It took a few more trips to the emergency room before I realized that it was a new style of gardening or no gardening for me. Thus began the first and hardest step—changing myself.

For me gardening had always signified self-sufficiency. But a basement and freezer filled with preserved vegetables was a genuflection to stubborn independence that my body could no longer afford to make. I painfully vowed to restrict myself to growing only as much as we could eat during summer, trusting that Safeway could get us through winter.

An essential part of changing myself involved letting go of expectations of perfection. If I didn't have the stamina to immediately eradicate a weed or bug, I waited until my physical strength matched my killer instincts. If necessary, I ignored a sprawling tomato plant for a few days before staking it.

Modifying my expectations led to step two: changing what I plant. I now concentrate on vegetables whose flavor suffers most at the hands of the grocery store. Garden broccoli is good, but I can live without it. Not

so with tomatoes, cukes, and corn.

Several of my flower beds now feature low maintenance perennials, rather than annuals. I basically avoid flowers and vegetables that issue a siren song to every passing insect or disease, as well as those requiring an unusual amount of watering and fertilizing.

Step three, changing my garden, required the assistance of an able-bodied person, in my case a blessedly willing husband.

The first thing Ted did was bring the garden from ground level to hip level by building a series of raised wooden beds. Close to three feet high, they vary in length from six to 15 feet. They are reinforced inside by four-by-four posts at each corner, and every two feet in between.

The beds are far enough apart for me to shove through a garden cart laden with my supplies. We graveled one of the paths, intending to do the rest later, but it turned out to be easier to walk and push tools along non-graveled paths. Five years later, the paths are simply worn dirt.

Ted then turned his attentions to the part of our yard that angles down sharply to a slough. Formerly suitable only for mountain goats, it now has five levels, set into a slope of about 45 degrees. Each "step" of the terrace is 20 feet long, two feet wide, and 30 inches high. The dirt in them is kept in place with two-by-four planks braced by long metal pipes pounded in every six inches. By standing on one step, I can comfortably tend the step above. On days of significant pain, I can sit on the same step I'm working on.

The final major reconstruction involved rebuilding my greenhouse. Its beds are now at a height easy to reach from an old rolling chair; I can glide it effortlessly across the smooth wood floor. Next, I redid my watering system. Pliable soaker hoses weave down the length of each box in my greenhouse, terrace, and raised beds. Pieces of hose, Y-fittings, and valves connect them, so I can water them all or only one at a time.

The hanging containers on the front porch are on pulleys that allow me to lower and

raise them easily. For the few baskets in other areas, I use a watering wand.

I have "retooled" my garden in other ways: the raised beds enable me to use short-handled tools that weigh less and are easier to maneuver. If the grips of a particular tool are too narrow to hold comfortably, I pull a sponge-rubber sleeve over the shaft. My hoses have snap rather than screw-on couplings, and my spigots use hand levers instead of round knobs.

In retrospect it all seems such common sense. If traditional gardening techniques don't work for your body, you have but three choices: change yourself, your plants, or your garden. It took me several years to accomplish all three, and by the time I was done with the process, I no longer needed it—open-heart surgery had cured my cardiac problems and medicines were keeping my arthritis in check. But I plan to keep experimenting with new adaptations. When quivering limbs, failing strength, and painful joints come for me again, I'll be ready!

Fairbanks, Alaska, newspaper columnist Linden Staciokas is on the Statewide Advisory Board of the Alaska Cooperative Extension Service.

SOURCES

These companies offer special tools and supplies to make gardening easier:

Alsto's Handy Helpers, Route 150 East, Galesburg, IL 61401.

Enrichments for Better Living, 145 Tower Drive, P.O. Box 579, Hinsdale, IL 60521.

The Langenbach Company, P.O. Box 453, Blairstown, NJ 07825-0453.

Lever-Aide Products, Inc., P.O. Box 623-AR393, Chanhassen, MN 55317.

Natural Gardening Company, 217 San Anselmo Drive, San Anselmo, CA 94960.

Snow & Nealley, P.O. Box 876, Bangor, ME 04402-0876.

Shepherd's Garden Seeds, 30 Irene Street, Torrington, CT 06790.

Walt Nicke Company, P.O. Box 433, 36 McLeod Lane, Topsfield, MA 01983.



AHS 1993 to 1994 Report to Contributors

TO OUR MEMBERS:

Returning to River Farm as AHS's President a little more than a year ago has renewed my faith in what American gardeners stand for and what they expect from this Society. I am proud of the energetic response of our staff and Board of Directors to the challenges facing the Society, and I am grateful for the enthusiastic support of the Society's members for our programs, services, and publications. Together, we open a new fiscal year with a clear declaration of purpose: to educate Americans to be better and more environmentally responsible gardeners, to serve as a bridge between gardeners and the green industries, and to make full use of our headquarters at George Washington's River Farm as a demonstration site and Center for American Horticulture.

Out of the Classroom—Into the Garden

In early August 1994 AHS held its second international symposium on children and gardening, this time co-sponsored by the Montessori Foundation and held at the Doubletree Conference Center in Alexandria, Virginia. Approximately 450 educators and others from across the nation learned the many approaches that can be used to teach children about plants, gardening skills, and the pleasures of our environment. The three-day symposium encompassed 11 keynote speakers and 30 workshops, culminating in a day of "hands-on" activities in the Children's Gardens at River Farm. The July 1994 *American Horticulturist* was a special 48-page issue summarizing the proceedings of the 1993 symposium and featuring articles by several presenters from the 1994 meeting as well. This impressive report is available from AHS for \$10 per copy and we hope that our members will use this tool to encourage local gardens and educators to duplicate the programs it describes. A third children's symposium is being planned for late June 1995 in Pasadena, California, so that these important programs will be readily accessible to members and friends in the western United States.

Improvements at River Farm

Our grounds are beginning to reflect a refinement appropriate to their prestigious heritage. Board Member Geoffrey Rausch, of Environmental Planning and Design in Pittsburgh, Pennsylvania, has begun to update our master plan for the grounds, but it will take several years for them to reach their full potential in terms of both beauty and educational potential. Our historic buildings demand careful maintenance and will ultimately need sensitive remodeling to make them more efficient as offices without sacrificing their charm.

As part of our renewed commitment to River Farm, we have added a full-time horticulturist to manage our 27-acre property of gardens, meadows, lawns, woods, and river banks. Just as importantly, the horticulturist also supervises the AHS interns whose educational experience here is funded by your generous contributions, and works with our local plant societies and garden clubs.

River Farm's gardens grow apace. Most of the children's gardens that were built here in conjunction with last summer's symposium have been replanted, and a bat cave/garden and an "eco site" have been added. We have also replaced a small rose history garden with an herb garden, "Herbs for the 21st Century,"

designed by Holly Shimizu of the U.S. Botanic Garden. In May, we dedicated the George Harding Azalea Garden, which honors a former chief of maintenance for the National Park Service. Local members of the azalea society planted more than 300 cultivars, while AHS provided the much needed irrigation system.

Great Gardeners Lecture Series

Following the very successful Great Gardeners Lecture Series sponsored by AHS every Saturday for 26 weeks at AmeriFlora '92 in Columbus, Ohio, a second series was held this spring at the Epcot International Flower and Garden Festival at Walt Disney World Resort in Orlando, Florida. The six weekends of AHS-sponsored speakers were organized by Board Member Katy Moss Warner and sponsored by *Better Homes and Gardens*.

Publications

We are dedicated to using our publications to highlight our nation's horticultural leaders, to identify the most rewarding plants, and to suggest ways of using them in landscapes that are both practical and beautiful. This issue contains a two-page survey we encourage you to complete and return to us with your suggestions. We will continue to produce special issues, such as the Proceedings of the Children's Symposium, to reflect the long-term activism for gardening issues that have always been the hallmark of AHS.

Gardeners' Information Service (GIS)

GIS fulfills the Society's mission of providing accurate, up-to-date information for members through its toll-free telephone line and informational materials on a wide range of topics. All of the hand-outs currently available will soon be redesigned in a format that will be easier to read and save for future use. We will be seeking outside authors, funding, and co-sponsors to help us expand our selection of these written resources. We anticipate that GIS's role, and indeed, AHS's responsibilities, will expand over time to fill the gap being made by shrinking government support for public gardens and horticultural issues.

Outreach

Our children's gardens were featured on the July 30 segment of PBS-TV's "The Victory Garden," with appearances by the designers, AHS staff, and some of their children and grandchildren.

This winter I helped make a five-minute video on composting, "From Garbage to Gold," for the Garden Club of America, which was distributed to all 200 of its local presidents during their annual meeting in Hawaii. Copies are available from AHS to share with your favorite organization. Through my national radio show, "Growise Gardener," broadcast from 8 to 10 a.m. every Saturday (with delayed times in the West), I seek to help gardeners of all levels of experience become more successful, while promoting membership in AHS.

These activities are just a beginning. Our outreach will continue to expand as more people turn to AHS as a source of inspiration and information. Watch, comment, join in, and aid our programs. I hope that in coming months I will have the opportunity to thank more of you individually and in person for your enthusiasm and support.

—H. Marc Cathey, AHS President

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BUILDING WITH TREES

All too often new housing construction begins with stripping all the trees from the homesite. When the house is complete, a few token trees are planted. But the natural beauty of the lot is often destroyed and may take years to recover.

The National Arbor Day Foundation decided to do something about America's naked landscapes. "Saving trees during construction can add to the aesthetic, monetary, and environmental values of the finished project," says John Rosenow, the foundation's president. All it takes are proper planning and cooperation among building-site professionals.

The arbor day foundation and the Pella Corporation have joined forces to create "Building With Trees" workshops. The full-day workshops are taught by Charles A. Stewart, president of Urban Forest Management in Fox River Grove, Illinois. Stewart is one of this country's leading consultants on the techniques of saving trees during construction. Workshops, which are held around the country, are designed for developers, builders, construction managers, land owners, architects, landscape architects, arborists, tree-care company staff, real estate professionals, city officials, community foresters, urban planners, and urban forestry consultants.

Building With Trees workshops will be held in the following cities this year:

- ♦ **Portland, Oregon**
September 7
- ♦ **San Francisco, California**
September 9
- ♦ **Chicago, Illinois**
October 5
- ♦ **Minneapolis/St. Paul, Minnesota**
October 13
- ♦ **Nebraska City, Nebraska**
October 19
- ♦ **Denver, Colorado**
November 1
- ♦ **Syracuse, New York**
November 3

For more information contact the National Arbor Day Foundation, 100 Arbor Avenue, Nebraska City, NE 68410, (402) 474-5655.



REGIONAL HAPPENINGS

Mid-Atlantic

♦ **Sept. 10. Exotic Plant Sale.** Clyburn Arboretum, Baltimore, Maryland. Information: (301) 367-2217.

♦ **Sept. 10. Historic Plants for the Home Garden.** Lecture. Monticello, Charlottesville, Virginia. Information: (804) 980-9822.

♦ **Oct. 2. Gesneriad Society Show and Sale.** Frelinghuysen Arboretum, Morristown, New Jersey. Information: (201) 326-7600.

♦ **Oct. 22. The Art of Pleaching.** The State Arboretum of Virginia, Bland, Virginia. Information: (703) 837-1758.

♦ **Oct. 28. Invasive Exotic Plant Seminar.** Sponsored by the Virginia Native Plant Society and the Virginia Department of Conservation and Recreation. Piedmont Community College, Charlottesville, Virginia. Information: Ted Scott, (703) 672-3814.

♦ **Oct. 30-Nov. 28. Fall Chrysanthemum Show.** U.S. Botanic Garden, Washington, D.C. Information: (202) 226-4082.

North Central

♦ **Sept. 11. Butterfly Garden Tour.** Olbrich Botanical Gardens, Madison, Wisconsin. Information: (608) 246-4551.

♦ **Sept. 17-18. Dahlia Show.** Chicago Botanic Garden, Glencoe, Illinois. Information: (312) 835-5440.

♦ **Sept. 23-24. Fall Festival and Garden Show.** Pella Historical Society, Pella, Iowa. Information (515) 628-2409.

♦ **Sept. 30-Oct. 1. Andersen Horticultural Library Book Sale.** Minnesota Landscape Arboretum, Chanhassen, Minnesota. Information: (612) 443-2460.

♦ **Oct. 7-Nov. 27. Ghosts in the Greenhouse.** Fall floral show. Krohn Conservatory, Cincinnati, Ohio. Information (513) 421-5707.

♦ **Oct. 8-9. Fall Festival.** Powell Gardens, Kingsville, Missouri. Information: (816) 566-2600.

♦ **Oct. 15-16. North American Savannas and Barrens Conference: Living in the Edge.** Illinois State University, Normal, Illinois. Information: Roger Anderson, (309) 438-7052.

Northeast

♦ **Sept. 10. Beekeeping A to Zzzzzzzzz.** Nature program by Roberto Velez. Wave Hill, Bronx, New York. Information: (718) 549-3200.

♦ **Sept. 12. Fungus Among Us—There's Something on My Roots.** Lecture by Roger Gettig. Longwood Gardens, Kennett Square, Pennsylvania. Information: (215) 388-6741.

♦ **Sept. 18. Annual Plant Sale.** Case Estates, Weston, Massachusetts. Sponsored by the Arnold Arboretum. Information: (617) 524-1718.

♦ **Sept. 22. Thickets in Fall.** Ecology workshop by Sara Stein. Sponsored by the Bartlett Arboretum Association, Stamford, Connecticut. Information: (203) 322-6971.

♦ **Sept. 23-27. Professional Plant Growers Association International Conference.** Buffalo, New York. Information: (800) 647-7742.

♦ **Oct. 1-10. Fall Flower and Landscape Show.** Planting Fields Arboretum, Oyster Bay, New York. Information: (516) 922-9201.

♦ **Oct. 5. Herbal Wreath-Making Workshop.** Plimoth Plantation, Plymouth, Massachusetts. Information: (508) 746-1622, Ext. 358 or Ext. 200.

♦ **Oct 17-19. The 12th Biennial New England Greenhouse Conference.** Sturbridge, Massachusetts. Sponsored by the New England State Cooperative Extension Services and State Grower Associations. Information: Richard J. Shaw, (401) 792-5996.

♦ **Oct. 22-30. Bonsai Exhibit.** Brooklyn Botanic Garden, Brooklyn, New York. Information: (718) 622-4433.

Northwest

♦ **Sept. 4, 18; Oct. 2, 16. Pacific Rim Bonsai Collection Lecture Series.** Weyerhaeuser's Pacific Rim Bonsai Collection, Federal Way, Washington. Information: (206) 924-3153 or (206) 924-5206.

♦ **Sept. 10. Annual Plant Sale.** Ameri-



can-Japanese Garden, Seattle, Washington. Information: (206) 522-3832.

♦ **Oct. 16-30. Fall Celebration.** Berry Botanic Garden, Portland, Oregon. Information: (503) 636-4112.

♦ **Oct. 27. Mushroom Show.** Mount Pisgah Arboretum, Eugene, Oregon. Information: (503) 747-3817.

South Central

♦ **Through Oct. 30. Insectasaurs.** Sculptures by David Rogers. Dallas Arboretum, Dallas, Texas. Information: (214) 327-8263.

♦ **Oct. 3. Suburban Garden Club Flower Show.** Botanica, The Wichita Gardens, Wichita, Kansas. Information: (316) 264-0448.

♦ **Oct. 8-9. Secret Gardens of the French**

Quarter. Tour. Patio Planters, New Orleans, Louisiana. Information: Patio Planters, P.O. Box 72074, New Orleans, LA 70172.

♦ **Oct. 8-11. Water Issues: American Society of Landscape Architects Annual Meeting.** San Antonio, Texas. Information: Jan Rothschild, (202) 686-8319.

Southeast

♦ **Sept. 24-25. Sixth Annual Symposium, Refining the Garden: The Trowels and Pleasures of Gardening.** Sponsored by the Atlanta Historical Society and the Georgia Perennial Plant Association. Atlanta History Center, Atlanta, Georgia. Information: (404) 814-4000.

♦ **Oct. 1. Fall Planting Festival.** Symposium and plant sale. Daniel Stowe Botanical Garden, Belmont, North Carolina. Information: (704) 825-4490.

♦ **Oct. 7-8. Garden Center of Greater Atlanta Fall Flower Show.** Atlanta Botanical Garden, Atlanta, Georgia. Information: (404) 876-5859.

♦ **Oct. 7-9. New Bern Chrysanthemum Festival.** Tryon Palace Historic Sites and Gardens, New Bern, North Carolina. Information: (800) 767-1560 or (919) 514-4900.

♦ **Oct. 8. Cornucopia Fall Festival.** Huntsville-Madison County Botanical Garden, Huntsville, Alabama. Information: (205) 830-4447.

♦ **Oct. 20-22. Holly Society of America Annual Meeting.** Myrtle Beach, South Carolina. Information: Linda Parsons, (316) 721-5668.

Southwest

♦ **Oct. 1. Fall Plant Sale.** Tucson Botanical Gardens, Tucson, Arizona. Information: (602) 326-9686.

West Coast

♦ **Sept. 25, Oct. 23. Hawaiian Plant Use Walks.** Ho'omaluhia Botanical Garden, Kaneohe, Hawaii. Information: (808) 233-7323.

♦ **Oct. 8-9. Posy Wranglers Flower Show.** Descanso Gardens, La Canada Flintridge, California. Information: (818) 952-4401.

♦ **Oct. 8-9. South Coast Orchid Society Show and Sale.** South Coast Botanic Garden, Palos Verdes Peninsula, California. Information: (213) 544-1948.

♦ **Oct. 9. An Afternoon With Sharon Lovejoy.** Lecture and book signing. Los Angeles County Arboretum, Arcadia, California. Information: (818) 447-0827.

♦ **Oct. 12. Tulipomania: Banking With Bulbs During the Golden Age of Dutch Grandeur.** Lecture by Eric Haskell. The Huntington, San Marino, California. Information: (818) 405-2160.

DESCANSO OPENS INTERNATIONAL ROSARIUM

Descanso Gardens in Los Angeles County opened the International Rosarium, their newest tribute to the rose, in May. The five-acre rosarium replaces their Rose History Garden and features 20 specialty gardens, each featuring roses and companion plantings reflecting a different theme, such as the Children's Secret Garden, the Butterfly Garden, the White Garden, and the Mission Garden.

Gail Boatwright, head of the rosarium committee and past president of the Descanso Gardens Guild, the nonprofit group that manages the gardens, says "the new garden is unlike any other in the world," with good reason. The rosarium committee devoted a year to researching other major rose gardens of the world and developing a garden that fit the informality and style of Descanso Gardens while keeping in mind the educational purpose of its predecessor.

The Rose History Garden was designed in 1948 by Walter E. Lammerts, a leader in scientific rose breeding. It chronicled the development of the rose from the Middle Ages to modern hybridizations, and became one of Descanso Gardens' most popular attractions. The new rosarium has combined the educational factors of the old garden with an aesthetic quality that even a novice can appreciate.

By 1996, final plantings will complete the rosarium's collection of 7,000 roses representing 2,200 antique and modern varieties from around the world.

NEW TISSUE CULTURE LAB IN ATLANTA

The recent opening of a tissue-culture and micropropagation laboratory at the Atlanta Botanical Garden will boost researchers' abilities to propagate and preserve rare and endangered native plant species.

Funded by a \$10,000 donation from Dorothy Chapman Fuqua, after whom the conservatory is named, the laboratory was built in what was formerly a conservatory kitchen. The lab is named in honor of conservatory superintendent Ron Determann who, according to the garden's marketing manager, Julie Herron, "really made the conservatory the success that it is."

Using the laboratory's high-tech equipment, plants that are difficult to grow from seeds or divisions can be propagated by growing sterilized seeds or tissue samples in a gel-based medium.

At present, Determann says, "the lab is a fairly limited setup; we have about 10 species that we're working with. And of course we have a hit list of many more." Much of the lab's efforts will be aimed at reestablishing populations of plants rare in the wild, often in coordination with other groups. "Our programs are tied into programs of other conservation organizations, like the Nature Conservancy," notes Determann.

Determann hopes the lab will make it easier to exchange plant specimens with foreign botanical gardens and research facilities, since tissue culture plants are sterile and exempt from some of the international laws regulating trade in threatened and endangered species.

Current projects include trying to propagate an endangered parasitic plant, *Schwalbia americana*, and growing several rare orchids native to Georgia. Determann says the lab is especially useful for propagating orchids, whose tiny seeds need associated fungi to provide nutrients. "But with the lab, we don't need the fungus. We can just culture directly from the seed because the culture medium allows us to provide the nutrition directly."



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GETTING MILEAGE OUT OF MEDIUM

Used tires have become a popular target for innovative recycling efforts, being chopped into mulch to carpet children's playgrounds and lining river banks to control erosion. Now a team of university researchers has tested ground-up tires as a possible replacement for expensive organic constituents in container media.

Daniel Bowman, a biochemist at the University of Nevada at Reno, and Richard Evans and Linda Dodge, who work in the environmental horticulture department at the University of California at Davis, planted rooted cuttings of chrysanthemum *Dendranthema* × *grandiflorum* in pots containing varying ratios of sand, sawdust, and ground tire rubber. A control group was planted in a straight sand-sawdust mixture.

Expectations, unfortunately, proved somewhat inflated. While all the plants involved in the experiment were judged to be of marketable quality after the 10-week trial, the mums grown in the media containing ground tires showed reduced plant height, weight, and number of open flowers compared with the control group. Tissue samples from the plants amended with the tire particles also showed decreased levels of several major plant nutrients, and greatly elevated concentrations of zinc.

The researchers concluded that ground automobile tires might be suitable only in a limited role as an amendment to container media for zinc-tolerant plants. "There may also be applications where you could use it as a source of zinc" for soil amendment, says Dodge. Disposing of the rubber-contaminated soil after use however, will require some careful treading.

HOLLOW, GOOD-BY

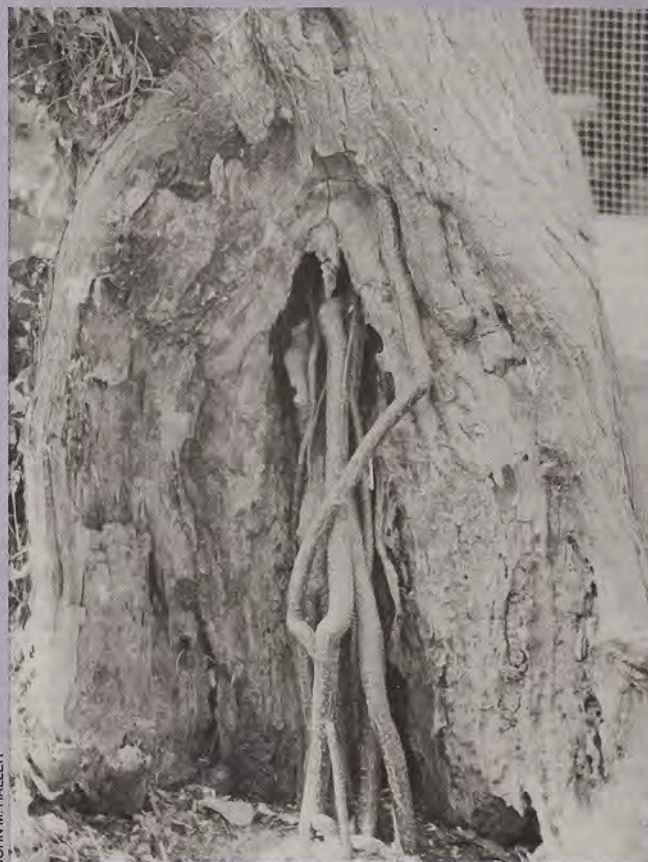
By an amazing process of tissue replacement, some hollow trees can gain a new lease on life by growing a new trunk within the hollow of the old one, according to a California tree specialist.

John Haller, owner of a tree service in Modesto, California, and author of the book *Tree Care*, has found that certain species of trees, including black locust (*Robinia pseudoacacia*), Chinaberry (*Melia azedarach*), and hackberry (*Celtis* spp.), are sometimes able to recover from traumas that leave the main trunk of the tree hollow by growing roots through the cavity to the ground. These adventitious roots, which often use the decaying tissue of the tree as a growing medium en route to earth, become a "living post," eventually enlarging to fill the empty shell of the old trunk. Depending on species and growing conditions, the process may

take from five to 10 years, Haller says, at which point "some kind of accommodation occurs between the growth rate of the inside tree and the decay of the outside tree."

While this process is well known in tropical trees such as banyans (*Ficus benghalensis*) and clusias (*Clusia* spp.), which have multiple aerial roots that can function as stems, it has not been extensively documented in temperate regions.

In cases where the tree is hollow all the way to the ground, rather than cutting away the rotted section or filling the cavity with cement or other impermeable materials, Haller often recommends leaving it open or filling it with soil to promote growth of adventitious roots. "I don't know anybody else who does this except me, but it works," he says.



A new interior stem anchored this Chinaberry.



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