

# American Horticulturist

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News Edition



## Back-Yard Dr. Doolittles

When real estate salespeople say "spacious," they mean open and uncluttered, Sara Stein observes in her book, *Noah's Garden*. But people who garden to attract wildlife, like Stein, understand space differently. "The less variety of habitat the landscape offers, the less space there is, until, when all is mowed, even an expanse the size of a golf course becomes just a hole in the world," she writes.

The seven gardeners we interviewed for this issue have real estate that ranges from 23-by-23 feet to two acres. But by Stein's definitions, even the smallest yard is spacious enough for butterflies, skunks, rabbits, squirrels, opossums, dozens of bird species, spiders, snakes, lizards, and toads.

All these gardeners are participants in the Backyard Wildlife Habitat Program of the National Wildlife Federation, and they love to share their enthusiasm. They dropped what they were doing to talk to us, shared photos and garden plans—

Lea Meyer of Cassel, California, even dashed out to her garden to make us a videotape. They seem happier than most gardeners: their landscapes are rich and varied but generally low-maintenance, and fretting about damage from deer or squirrels is—well, kind of against the rules.

We hope their stories will inspire our readers to help them in plugging up some of the holes in our world.

### Plant Hunting at Home

In this issue we introduce a new department, "Mail-Order Explorer." Many calls to our Gardeners' Information Service seek help tracking down a seemingly unobtainable plant. "Mail-Order Explorer" should help in those searches—and make readers lust for plants they didn't know existed. Each issue of the News Edition will feature a

different mail-order nursery. Most will likely be small; many will be relatively new. All will offer plants not generally available elsewhere.

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## Are You a Wild Gardener?

All of the gardeners whose stories appear in the next seven pages are participants in the Backyard Wildlife Habitat Program of the National Wildlife Federation. Since it was established 20 years ago, it has certified more than 12,000 gardens throughout the country as official wildlife habitats.

To qualify, property owners need to show that they have animal feeders and plantings to provide nuts, seeds, berries, buds, or nectar for animals to eat, and a water source for drinking and bathing. They need to provide cover, in the form of dense shrubs, evergreens, brush or log piles, rock piles or walls, ground covers, or a patch of meadow, scrub, or prairie. They should also be maintaining places where animals can raise young—trees, shrub masses, nesting boxes or shelves, dens in the ground or in rock, or a pool surrounded by plantings or rocks. If yours is primarily a butterfly garden, you will need to list food plants for caterpillars.

The federation recommends that their wildlife gardeners eliminate most of their turf grasses, rely on natural pest control, use less commercial fertilizer, recycle yard trimmings into compost and mulches, and grow native plants.

However, just one of our seven gardeners grows only natives, and most have chosen some of their plants simply because they find them attractive. One of the gardens is completely natural; another was professionally designed.

*An information packet on the Backyard Wildlife Habitat Program, including an application form for certification, a booklet on planning and planting a habitat, and a paperback, The Backyard Naturalist by Craig Tufts, is available for \$2 plus \$3.25 for postage and handling, from the National Wildlife Federation, 1400 16th Street N.W., Washington, DC 20036-2266, (800) 432-6564.*

## Wildlife Gardening Resources

After you read about the joys and drawbacks of creating a garden for wildlife, you may (or may not) be ready to delve into the how-tos of such an enterprise.

If you want to attract the wildlife of your region, you will probably want to choose native plants of your region. A recent promotion for a book purportedly about gardening with nature says you can recreate the Rocky Mountains or the Maine coast no matter where you live. Perhaps—but what will the neighbors' butterflies think?

For specific guidance to your own ecology, you may need to visit your local library to consult guides to regional flora, or join your state's native plant society. For a list of these societies, send \$2 to the American Horticultural Society's Gardeners' Information Service, 7931 East Boulevard Drive, Alexandria, Virginia, 22308-1300.

Other relevant GIS bulletins are "Wildlife Habitat Gardening," \$2; "Butterfly Gardens and Gardening," \$3.50; and "Sources of Propagated Native Plants," \$1.

Some books with general information on wildlife gardening include:

*Noah's Garden* by Sara Stein. 288

pages, black-and-white illustrations. AHS member price, hardcover: \$18.65. This book, reviewed in the June *American Horticulturist*, describes a gardener's efforts to restore her five acres to an ecology of native plants and animals. Read this one for inspiration.

*Your Backyard Wildlife Garden* by Marcus Schneck. 160 pages, color photographs and drawings. AHS member price, hardcover: \$19.95. Schneck describes wildlife gardens throughout the country and in Canada, and includes special habitats like deserts and salt water marshes. Lists of plants that attract wildlife are coded for appropriateness to different areas.

*The Naturalist's Garden* by Ruth Shaw Ernst. 273 pages, black-and-white illustrations. AHS member price, softcover: \$13.25. This might be your choice if you want to attract more wildlife, but don't want your garden to look too "wild." The emphasis is on creating an attractive landscape that will offer some nectar and seed sources. Mammals are merely described, with advice on how to deter them should they get too pesky.

To order any of these books, use the form on page 27.





## A Bird Haven in Nebraska

**O**n Mother's Day, most mothers like being taken out to a good restaurant or getting a bottle of expensive perfume. For Ann Kelley, the nicest gift is an entire day to do nothing but sit on her patio watching birds.

Since Kelley bought her childhood home in Lincoln, Nebraska, 20 years ago, she has identified 120 bird species. She was out of town last Mother's Day, but in 1992, she counted 37 species. "I count ones that fly overhead, too," she says, "so I'm able to include birds like sandhill cranes."

Kelley's list includes eight to 10 types of hawks, turkey vultures, a raven—"they're not even supposed to be here," she says—and 29 warblers. This year for the first time she saw a kestrel, the smallest of the falcons. For a while, her garage was home to a screech owl. Mammals feel at home here, too. Cottontails are frequent visitors and a racoon was thought to be living in a hollow ash on her property line. She sees bats, although none has yet moved into her bat boxes.

Kelley's quarter-acre landscape in no way reflects the natural ecology of Lincoln, which she describes as short grass prairie. Even if she wanted to plant natives, many would be illegal. "A city ordinance says thou shalt not plant any useless vegetation over six inches high," Kelley relates. "Useless vegetation is defined in the Nebraska weed book, which lists just about all Nebraska wildflowers." Butterfly weed and sunflowers are in there, as are attractive vines such as wild grape and Virginia creeper.

The genesis of Kelley's garden plan was the death of eight American elms shortly after she and her husband bought their house from her mother. "We kind of went overboard replacing them," she says. Thus, instead of purple coneflowers or blazing-star, her garden is filled with woodland flowers native to southeast Nebraska or even the East Coast: Dutchman's-breeches, Virginia bluebell, Solomon's-seal, bloodroot, trillium, Jack-in-the-pulpit, wild ginger, mayapple.

Not everything she grows is chosen with wildlife in mind. "I plant some things just because I like them," she says. In regard to wildlife, Kelley feels it's hard to go wrong in choosing trees. "Nearly

every tree provides some kind of food for birds." She does regret her choice of black walnut, because of the allelopathic effect that has killed everything around it but red-twig dogwood. Among other trees on her property are linden, cottonwood, maple, and hackberry.

When it comes to shrubs, berries are clearly the favorites: viburnums, elderberries, junberries, raspberries, cranberries, and gooseberries, the latter collected, with the owner's permission, from a vacant lot next door.

Even more than berries, moving water "works like magic" to attract birds, she says. Recirculating pumps are best, but her warblers like a bird bath just barely off the ground with a hose dripping into it. A sprinkler often convinces migrating birds to take a rest stop.

Another Lincoln family certified by the National Wildlife Federation program—there are more than 20 of them that Kelley knows about—removed their lawn, surrounded their yard with a tall fence covered in wild grape vines and Virginia creeper, and built a pond that they heat in winter. "They removed their old porch and built a screened porch that becomes a glassed-in bird viewing area in winter. It's on one of the city's busiest streets, but it's a bird mecca."

It's a good thing that some of the certified wildlife gardeners keep in touch. Because of local ordinances, several have been called on the city hall carpet. "Some

of them lose their cases and have to mow their plantings," says Kelley. "I've been fortunate in that I've been able to defuse most of the complaints." At one point, neighbors complained about a brush pile 50 feet long that Kelley had built as a shelter for birds and small mammals. It happened that a leading rodent authority was among university faculty members who helped make a film on her sanctuary. He was able to testify to one of the chief concerns: the pile was carefully maintained and not likely to harbor rats. The fire marshall concluded that the only danger of conflagration was posed to Kelley's own garage.

Kelley, who has since reduced the size of her brush pile, thinks "people have to take a reasonable approach" to wildlife gardening. "One man whose case has gone to the state supreme court believes that people should be allowed to plant anything." This gardener, she says, apparently is quite fond of Jerusalem artichokes. "He was growing them out in the alley with some weedy trees. It really did look awful."

Of three property owners adjacent to the Kelleys, one couple dislikes her garden because the trees make it difficult for them to grow vegetables; another family enjoys it; and a third doesn't much care because his is an unmaintained lot.

Kelley, a substitute science teacher, has been working with a local Audubon Society conservation committee to create a test plot at the Adams Street Center, a day center for adults with mental problems. "It's intended to document the bareness of a lawn compared to the richness of a wildlife habitat," she says. "Bluegrass is labor intensive, expensive to maintain, and not at all suitable for Nebraska." A trailer court about a block away has no garden, and volunteers have noticed that children who live there have begun to drift down to the garden. They hope their parents will be next.

Kelley can recall a time when she, too, fought to grow a lawn. Now she fights to convince city officials and other landowners that there are other types of urban landscapes, and that when it comes to what should be called a weed, "what's true for a farmer's field isn't necessarily true for a back yard."



COURTESY OF ANN KELLEY

Ann Kelley.





## A Personal Park in Baltimore

**B**eyond Larry and Cheryl Nickol's Baltimore, Maryland, lot is a strip of woodland about 50 feet wide. Beyond that is a meadow, which surrounds a Baltimore Gas and Electric Company power plant. And beyond that is parkland. "From my house in Baltimore County," says Larry Nickol, "I could walk all the way to the Pennsylvania border, just on parkland or BG and E land."

The possibilities of that 30-mile stretch of parkland weren't lost on the Nickols when they decided to put in their garden three years ago. Instead of going to the park, why not bring the park home? But the idea proved too big for their hectic schedules, so the Nickols hired a landscape architect to install their wildlife garden. "If we hadn't done that," says Nickol, "we'd still be planning it."

At the far end of the half-acre property,

against the woodlot, is a serpentine bed filled with shade plants, like ferns, hostas, astilbe, bleeding-heart, and ligularia. The plants were chosen for both foliage and flower—or the wildlife gardener's equivalent: cover and nectar. A gate into the woods separates this bed from a garden of perennial grasses, which sweeps around a corner and stretches up towards the house. The grasses—*Pennisetum*, *Miscanthus*, and *Calamagrostis* species—are punctuated with a variety of shrubs and small trees. Azalea, viburnum, high-bush cranberry, winterberry, crabapple, and red-twig dogwood offer both cover and berries for food.

Water is available from two tiny, kidney-shaped pools, one in the grass garden, the other beside the patio.

A good design and a good location have made the Nickols' lot a very busy place. Visitors include deer, rabbits, squirrels, opossums, raccoons, and chipmunks. A squirrel feeder does double duty: Local rabbits have learned that squirrels have sloppy table manners and they can usually find a free meal by waiting patiently below a feeding squirrel.

Birds seem passionate about the Nickols' black-eyed Susan and scarlet sage, although there are feeders for them as well. From their patio, the Nickols watch American goldfinches, purple finches, and wrens. Wrens occupy one of their bird houses this year. A pair of bluebirds showed up last year, apparently looking for a place to nest, Nickol says, "but the sparrows drove them off."

One regret is the absence of bats. There are plenty in the area, since they have colonized the cooling towers at the power plant. Nickol put a bat house up about a year ago but so far, has not attracted any tenants. (See box.)

The woods that bring so much wildlife into the garden have imposed one serious constraint: a lack of direct light. Most of the lot is in shade most of the day, so the Nickols have had to sacrifice some sun-loving plants they had originally favored. In the serpentine bed, for example, monarda has yielded to ferns and hostas. But in general, the design is working well. Now that the plants have had time to establish themselves, says Nickol, "things are really starting to take off."

## Striking Out With Bat Boxes?

Bat boxes have become a common garden fixture, as more and more people try to attract these fascinating little creatures with gargantuan appetites for bugs. But many would-be bat hosts, disappointed by long vacancies, have begun to doubt that the bats actually like the boxes.

In a survey released in April, Bat Conservation International found that of 420 bat box owners in 26 states, 52 percent had bats in their boxes. BCI members were more successful than nonmembers—a result the survey attributes to better education. And large boxes generally did better than small ones. When houses were "properly made and ideally placed"—near water and in sunlight—the success rate was 83 percent.

But Thomas Valega, president of the American Bat Conservation Society (ABCS), still doesn't think the boxes do much good "from what we have been able to determine from our bat roost survey and from the scientific literature, which isn't very large." Valega says that since the BCI findings were from a phone survey, they do not have the validity of a scientific study. He thinks the best available work was done by Canadian scientist Brock Fenton, who studied the little brown bat colony of 10,000 in Chautauqua, New York. The Chautauqua bats lived mostly in older houses, many of which were being renovated. Fenton set up

boxes for bats the builders evicted but, says Valega, "after much study and adjustments of all the variables involved," he couldn't get the bats into the boxes.

Merlin Tuttle, BCI's executive director, defends the scientific validity of the BCI survey. "You can actually get more information when you have a bunch of people just putting things up different ways than when it's done by a scientist who thinks he already knows the answer." For example, he cites the widely accepted idea that bat boxes shouldn't be painted. In the North, ignorance of this belief paid off, the survey found: dark paint boosted the chances of occupancy, presumably because it made boxes warmer.

Tuttle says the ABCS survey showed a low occupancy rate because ABCS boxes were badly designed. In Chautauqua, "there was not a shred of evidence that the bats needed new roosts," he says, and the boxes did not get enough light. "Our study was by far the most extensive study ever done by anybody," he says. "Bat houses are the next most successful things to purple martin houses."

*Contact Bat Conservation International, at P.O. Box 162603, Austin, TX 78716, (512) 327-9721, and/or the American Bat Conservation Society, at P.O. Box 1393, Rockville, MD 20849, (301) 309-6610.*





## An Undisturbed Oasis in Arizona

**T**eri Olsen and her husband Richard had always been nature lovers. While living in western New York, they had done a lot of hiking, observing, and learning about both plants and animals. They knew they wanted a home landscape that would make them feel they were in the wilderness.

But when they acquired two acres, it wasn't in New York. It was in the Sonoran Desert town of New River, Arizona, 30 miles north of Phoenix. The average rainfall is 15 inches a year. "Most articles and books on wildlife gardening deal with gardeners back East, or maybe the California coast," says Teri Olsen. "They aren't much help when you can't grow any of those plants."

Fortunately, Olsen is a librarian, able to find her way through regional nature books. What she was looking for, however, was not really ideas about what to plant. She just wanted to know what to expect of the life already on her land. "We're probably an extreme example in terms of what we *haven't* done," she says. "We don't trim our trees and we don't remove weeds. We fill our bird feeder and keep it clean so diseases don't spread."

Olsen believes passionately that the natural desert vegetation is both beautiful and varied. The family's property contains 50 paloverde trees and a dozen mequites, as well as cholla, prickly pear, and barrel cacti. Good browsing plants for the local mule deer include bur-sage, ratany, and condalia. Desert marigolds bloom by the hundreds from March through May and again in fall.

No, the neighbors aren't totally understanding of this laissez-faire attitude. "I have one who likes to ask if I want her son to come over and cut my weeds," Olsen laughs. Invasive exotic weeds are not a big problem. As the East has honeysuckle and kudzu, the desert has Russian thistle. "It likes to grow on disturbed areas, and since our land is relatively undisturbed, it hasn't gotten a foothold."

The Olsens estimate that they paid a bit more for the privilege of having this virgin terrain. For the site of their earth shelter house—buried in a berm to reduce the need for air conditioning—they chose a relatively barren piece of the property, then planned a driveway that would

curve around as many plants as possible. "We were out working in 100-degree heat, pounding in fence posts to close off areas we didn't want the construction crews to touch," she relates.

Grasses and sunflowers give birds seeds and places to hide. "It's important to grow something they can eat while you're on vacation," she says. "They can get dependent on the feeders." In addition to thrashers, finches, and mockingbirds, their garden attracts towhees, flycatchers, and roadrunners. A quail family with 15 babies hung around long enough to produce a second brood "seven of them . . . with bright orange legs and feet, and only about one or two inches tall, so

small that they even had trouble hopping up to the front porch."

Mammal visitors include cottontails and jack rabbits, coyotes, and mule deer. A family of four ground squirrels moved in under a cactus outside the front porch. The desert also harbors wild pigs called javelinas. One night the Olsens were awakened by sounds outside their open bedroom windows, which are at ground level. "One of the javelinas came up and pressed its nose right against the screen!" Olsen recalls. They smell like skunks up close, she says, but they're fun to watch rolling in the mud when she fills one of the small washes, or arroyos, cutting through their property.

The washes are dry except during a rare rain, so bird baths are crucial. Even a brief watering of their rosemary plants is enough to bring around the quails for a drink. The ground squirrels cool off by flopping on their bellies in the wet sand with their legs splayed out. The Olsen's raised deck and overhangs become shady havens in the desert heat.

"People wonder if we have rattlesnakes, because of our underbrush," says Olsen. "In four years, we've only seen snakes three times, and they were minding their own business." One was a nonpoisonous bull snake. The other two spottings were of coral snakes, which are poisonous. "But they're rare, so it was really a treat," she says. Lizards, horned toads, bats, and tarantulas also put in appearances.

Yes, the wildlife can get too chummy at times. Birds and mice feel free to nest on their roof, which can get a bit messy. The 10 by 20 foot vegetable garden has to be protected from birds and squirrels with both fences and netting. More unwelcome are neighbors' cats and dogs—the Olsens have chosen not to have any pets—who scare away the wild animals. "But if we put a fence around our property, we would fence out the wild animals too."

Because the lots in their development are generally at least an acre, all of it could potentially be a wildlife haven. But most of the neighbors put out a bird feeder at most, then take advantage of all the space to have horses. "They put up barbed wire to keep in their horses," she laments. "It's really destructive."



A portion of the Olsens' desert wildlife landscape.

COURTESY OF TERI AND RICHARD OLSEN





## An Urban Jungle in California

**R**eady for a real urban gardening challenge? Imagine this: you have a 30-by-118-foot lot and almost half of that is under your house. The rest is in a ravine. You're one block from a major highway, and you want to make a wildlife garden. Fifteen years ago, this was the problem that faced Ron Yeo, a California architect who lives in the small coastal community of Corona Del Mar, near Disneyland.

More timid gardeners would have headed for level ground, but Yeo looked over the ravine and the trees already growing in it—a Chinese elm, a banana, a silk oak—and saw the possibilities. "The trees and the topography itself lent character to the place," he says. "It made it feel jungly. That's why we bought the house—because it had a really interesting space."

The jungle Yeo designed sounds too big to fit into that space. Its focal point is a small pond, which you reach from the front gate by descending about eight feet of stairs. Yeo has stocked the pond with fish and water lilies. "We used to have koi but the raccoons ate them all. Now we have goldfish." The goldfish are a cheaper way to feed raccoons, but Yeo has learned to make the fishing harder by building little underwater caves out of

rocks, concrete blocks, and pipe. A bridge brings you to a patio and at the pond's edge, there is a stone-paved "clearing" from which you can survey the forest.

To his original stock of trees, Yeo has added lemon and fig. He also put in a Brazilian pepper (*Schinus terebinthifolius*), a handsome but aggressive small tree that produces bright red berries. A neighbor's fence screens the lot on one side; on the other side are some of the larger trees, supplemented by 50-foot bamboo.

Apart from these exotica, "I've got a reasonable amount of natives," Yeo says. For instance, he has toyon (*Heteromeles arbutifolia*), another small berry-producing tree. But the irrigation that supports the lush vegetation has discouraged many of the natives. "The natives are used to a long dry summer," he says. "So we've lost some of the toyon and some of our native shrubby ground covers."

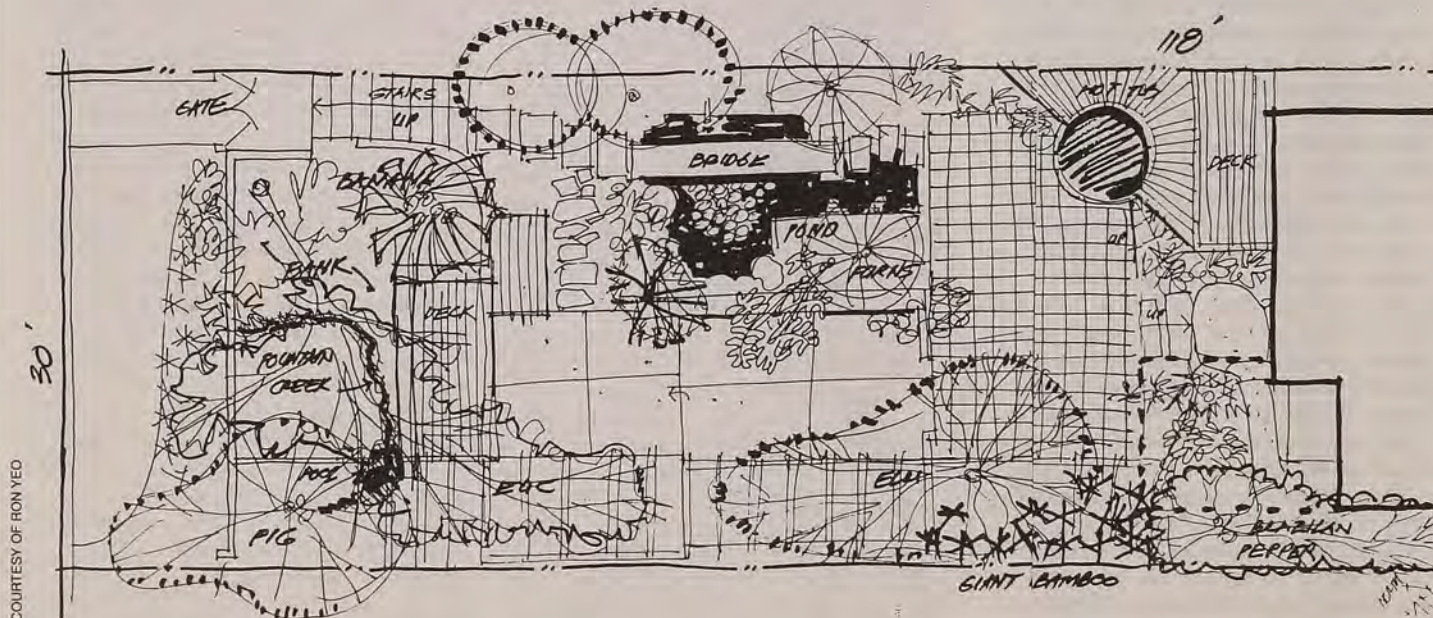
The jungle leaves no room for vegetables or herbs, so these are grown on a roof-top deck. Flowers in containers can be moved to catch each rare shaft of light.

The garden wasn't designed as a habitat for particular species—it was more a matter of waiting to see what showed up. And since most of the fruit is left for the wildlife, there has been no lack

of visitors. "We get all kinds," says Yeo. Mourning doves, sparrows and, he thinks, crows are nesting on the lot. Black throated sparrows visit, en route from Alaska. For several years, a pair of hummingbirds have nested next to a window of the house. "Most people never get to see a hummingbird when it's not flying," he says, adding that they can be pretty aggressive toward anyone who comes near their nest. At night, the garden attracts opossums, skunks, and the occasional coyote. "One time we had a whole family of skunks." Skunks may not strike you as ideal garden guests, but Yeo says "it was fun to watch the little ones play."

If he had it to do over again, he says, "I probably wouldn't do much differently." His only major complaint is that the garden tends to get too dark, a common problem on small lots.

But second-guessing oneself is part of the pleasure of gardening. As Yeo's garden shows, even a small lot offers room enough for endless guessing and exploring—especially if you're gardening with more than your plants in mind. "As time goes by, we get a few more visitors," says Yeo. "And the garden is constantly changing."



The plan of Yeo's ravine garden.





## In Delaware, a Little Lot of Butterflies

Stanley Temple's back yard is a mere 23 by 23 feet. But to a butterfly, that could be an entire world. Red admirals, painted ladies, question marks, commas, and fritillaries are among the denizens of Temple's Wilmington, Delaware, townhouse plot. The product of nearly a decade of thought and experiment, Temple's garden attracts a host of visiting butterflies and accommodates some for their entire life cycle.

Temple is an environmental treatment chemist for DuPont and an amateur lepidopterist. After getting permission from his townhouse council to take his hobby into his yard, Temple practically jammed his lot with plants. "I don't believe in lawns," he says. The results don't look like ordinary suburbia, and that bothered some neighbors at first. "When I first put the garden in I had some complaints," Temple recalls, "but when I started getting featured by the local papers and by the National Wildlife Federation, people switched their thinking."

The garden offers its butterfly guests a smorgasbord of nectar-producing plants. Some of these are cultivars; others might in a different context be called weeds. In the first category, for instance, are two of the red-flowering 'Dropmore Scarlet' honeysuckles. "These are great nectar plants," he says. But he also has ironweed, whose purple flowers are patronized by many butterfly species. Temple says members of the Compositae, like ironweed, often make good nectar plants. For example, composites are a good bet for attracting the painted lady. Since it's one of the most widely distributed butterflies, the painted lady probably lives near you.

Of course the butterfly bush (*Buddleia davidii*) figures in Temple's garden. Temple says the plant deserves its common name because it will attract virtually every species of butterfly. Plants that are patronized by butterflies will usually feed a number of species, but the butterfly bush has no rival in the breadth of its appeal. Its relationships with other members of the plant kingdom, however, are less cordial. The butterfly bush tends to be shallow rooted, and Temple has had trouble fending off some of its more aggressive neighbors. But the bush's

drawing power more than justifies the effort: Temple says he once even saw a ruby-throated hummingbird sipping nectar from his *Buddleia*.

But butterflies do not live by nectar alone. Temple wanted butterflies to grow in his garden, and not just visit it, so he had to accommodate the insects' entire life cycle. And that meant feeding the leaf-chomping caterpillars as well as the nectar-sipping adults. Unlike the nectar plants, the larval food plants tend to be fairly specific in their appeal, but there are some that will accommodate several species. For instance, there's nettle. It may not be every gardener's dream plant, but Temple says it feeds the larvae of at least four butterflies in his area: the red admiral, question mark, comma, and the rare Milbert's tortoiseshell. Another multi-species larval food is Dutchman's-pipe (*Aristolochia durior*), a handsome deciduous vine that gets its name from the meerschaum-pipe shape of its flowers. It's used by the larvae of several swallowtail species.

A hedgerow behind his garden has allowed Temple to expand his influence beyond his own lot. The hedgerow is on common ground, but Temple has added some wild plants along and underneath it anyway. Among his contributions are wineberry, foxglove, nettles, and ironweed. Although Temple sometimes strays

from his lot, he tries to prevent his garden from doing so. To block plants that spread by runner from invading the common area, he has put in daylily and spiderwort borders.

Like every seasoned gardener, Temple has had a few disappointments. He used to grow the New England aster, for instance, since asters are very attractive to monarchs. "It was beautiful for a couple of years," he says, but disease eventually ruined the planting. Oswego tea (*Monarda fistulosa*) was another early choice that didn't last, although he's thinking of replanting this.

Temple is planning some other changes as well. He may plant more blazing-star (*Liatris* spp.). And he has just put in a trumpet vine, "but I'm not sure about that." Trumpet vine flowers are probably too deep for butterfly probosces, he says, although they're perfect for hummingbirds. He's also interested in finding more drought-hardy plants with butterfly appeal, and he's beginning to regret the nettles, which are hard to hold in check. Fighting nettles is the sort of labor that inspires reflection, and Temple has some blunt advice for anyone gardening in a small space: "Don't plant anything that spreads by runners."

Not all of Temple's adversaries are plants. There's a predator in the butterfly garden: the praying mantis. Praying mantises like Temple's yard at least as much as the butterflies do—in fact, they like it because of the butterflies. "Once I saw one snatch a moth right out of the air," he says. Or rather, he didn't see it: he was watching the moth and didn't even notice the mantis until it had the moth in its clutches. Temple is trying to reduce his mantis population, not by killing the mantises, but by "redistributing them," as he puts it.

Despite almost 10 years of planting and watching, Temple's garden could still yield surprises. That rare Milbert's tortoiseshell, for instance, is present in his area, but has yet to show up in his yard. The chances of that visit may be growing smaller, as shopping malls and roads swallow up more and more of the tortoiseshell's habitat. But this loss makes gardens like Temple's an increasingly vital enterprise.



COURTESY OF ANN KELLEY

The painted lady, shown here on a sedum, is one of the commonest butterflies.





## Gardening With Deer in California

**I**n a videotape tour of Lea Meyer's property, the sound comes on before the picture. The only sound is bird song.

Meyer came to the United States from Switzerland in 1956, intending to stay only two years but remaining in this country as a public health nurse. Now retired, she was already a long-time birder when she moved to Shasta County, California, from the San Francisco Bay area eight years ago, and she noticed that the variety of birds in her new location was even greater. Hat Creek, a trout-fishing stream only 200 yards down a gentle slope from her house, is an excellent water source along a heavily traveled migratory route, and Meyer was determined to make all comers feel welcome to stop or stay.

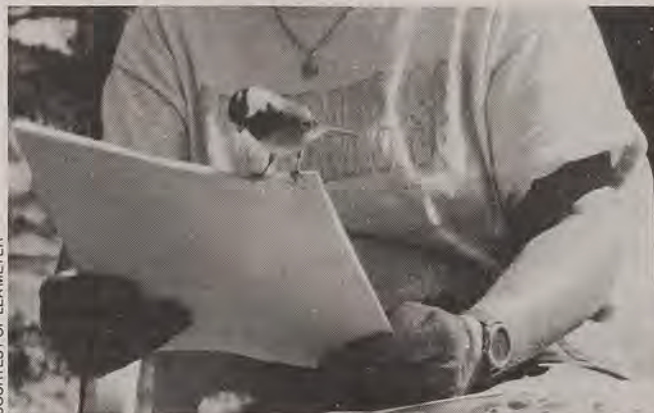
Her combination of plants, feeders, and five bird baths seems to have succeeded. Since then she has counted 146 different species, including ducks and geese. Fourteen species have taken up residence. During our taped tour, a swallow peeked out of a bird box to say "hello." Other visitors include rabbits, raccoons, and striped and spotted skunks. A gray fox makes its den amid a loose heap of rocks.

Would-be wildlife gardeners might envy her expanse of one-and-a-third acres and her bucolic setting, but rural gardeners have problems of their own. Often, that problem is deer. Gardening for Meyer has been an exercise in learning what deer won't eat. "We were told that they wouldn't eat rhododendrons, so when we moved here, we bought a lot of rhodies. Expensive ones. They ate them all."

Each plant in her yard is evaluated to some extent for its beauty, but more for its deer resilience. Meyer doesn't have the heart to leave the tasty ones to their fate; those that fail to pass this crucial test but survive are confined to wire cages.

"We're in a transition zone from high desert, at 3,000-foot elevation," she explains. The rolling terrain is studded with ponderosa pine and juniper. In early May, white oak is just leafing out. A tree squirrel's nest can still be easily spotted in a California black oak. These trees have matured beyond the deer's reach.

Among conifers, pines and spruces tend to remain unscathed. A Colorado blue spruce is thriving, as is a red cedar



COURTESY OF LEA MEYER

*A chickadee checks out the reading matter on Lea Meyer's deck.*

planted seven years ago. But Douglas fir was a casualty, and a white fir and a European birch are caged.

Meyer has found, as have others in deer country, that tastes can be changed quickly by a hard winter, like their last one. Three Scotch pines, usually ignored, were nibbled to death, and others were essentially decapitated. A *Photinia fraseri* was munching for the first time, but the prognosis is good. Deer aren't the only connoisseurs in this garden. A seven-year-old red maple, caged when it was smaller, is ignored by deer now, but its trunk is wrapped to deter jack rabbits. Squirrels chewed the top of the European birch.

Among smaller trees and shrubs, natives seem to do best: mountain mahogany, buckbrush, redbud, plum, and chokecherry hold their own; a manzanita, however, disappeared. Many of the shrubs she has planted—such as cotoneaster and lilac—will live out their days in cages. She seems resigned to the need to pen in her plants until she gets to the lupines. "The big, wonderful lupines," she sighs, "are in cages."

Deer ignore her daffodils, she says, "so we have 500 to 1,000 daffodils that bloom from March until May." Muscari does fine, unless squirrels decide to move it around. Shasta daisies and irises are counted among the survivors, as are daylilies, which deer on the East Coast find irresistible. "We've been quite lucky with them," says Meyer. "Sometimes they chew on the flower stalks." Asiatic lilies

are another story: gophers move them around and have eaten about half of Meyer's collection.

Her combination vegetable, herb, and cutting-flower garden is one foot wide and 50 feet long, fenced not only on all sides but also enclosed with wire mesh on top. If any tomato vines climb through the wire, deer quickly shear them back.

The deer ate the honeysuckle and a golden currant that she put

out for hummingbirds, and orioles tried to hog the hummingbird feeders. "Caps" made from styrofoam meat trays hung above the hummingbird feeders discourage the larger perching birds but let the little hovering hummers reach the nectar. Still trying to make everyone welcome, Meyer made oriole feeders out of plastic soft drink bottles, made more alluring to the orioles with bands of red tape. "It seems to be the same birds that come back every year," she said, "because the first time we spot them, they're going straight for the feeder."

They have learned to keep all of their bird feeders at least five and a half feet off the ground. "At first we had our feeders at four to five feet, until the day we saw the deer up on their hind legs." A one-foot length of stove pipe just under the feeder is too wide and slippery for squirrels to climb. "Don't put your feeder under a tree where squirrels can climb on them," she advises others.

Not only do her neighbors have no problems with her gardening style, but one, a school principal, shares with her the gigantic bags of animal food she buys in the winter. For the quails, she buys chicken feed. You might think that with all the consternation the deer cause this gardener, she would discourage them. But in fact, Meyer goes out of her way to feed them in winter, too, filling wooden boxes with "screening pellets" made from corn and alfalfa. "They were here first," she observed.





## Gardening With Deer in New York

**K**aren Jescavage-Bernard had no formal background in horticulture or botany until she became development director for a Long Island arboretum and sanctuary. In the course of joining other staff in such activities as wild plant rescue missions, she decided to shift her career toward landscape design.

In 1989, she moved to an old house on a damp, shady, half-acre hillside lot with three truckloads of plants intended as breeding stock for her own nursery business.

She wrote about the experience: "Three months later the only survivors were some sedums, iris, *Coreopsis* 'Moonbeam', a large planting of *Fragaria* 'Baron Solemacher', and 'White Pet', an old

shrub rose. I never saw the culprits who came by night like zombies."

The "zombies" turned out to be white-tailed deer. Rather than immediately invest in what she calls "the costly armamentarium of suburban deer warfare," Jescavage-Bernard became a conscientious objector who gave some long careful thought to alternatives. The result was the booklet *Gardening in Deer Country* and a garden philosophy based on two steps: observe your natural environment to determine what deer don't eat, then thumb through *Hortus Third* and other sources to find attractive relatives and cultivars. Sometimes almost a whole plant family will prove deer-proof.

Former owners of her property tried to

fight nature by creating an English garden, doomed by deer and shade. But she's now living in peaceful co-existence with not only deer but all manner of other wildlife.

Not only was the property shaded, but it drained poorly. Jescavage-Bernard took advantage of the wetness to create both a mud bog and a pond, planting ferns, wild irises, and silky dogwood, a berry-producing native of wetlands all along the East Coast. "People tend to always want ornamentals like the flowering cherries that don't drop fruit," she observed. Her well-fruited garden, on the other hand, has attracted "every rodent except beavers": rabbits, foxes, raccoons, opossums, ground hogs, and chipmunks.

The water environments draw dragonflies, "lots of toads" and turtles—"box turtles, I'm afraid, not painted turtles." The story for frogs is not such a happy one. In spite of her three-by-three pond Jescavage-Bernard is hearing fewer frog songs than four years ago. Amphibians are dwindling all over the world, many becoming extinct. No one knows why, but one theory is that their thin skin, a sort of back-up breathing mechanism, makes them especially vulnerable to all the chemicals we use. Loss of wetlands and too many predators are other explanations.

Although water moccasins have been seen a half mile away from her home, Jescavage-Bernard's snake visitors tend to be the harmless sort—rat snakes, garter snakes, and black snakes—including a four-foot black snake that found its way to her attic.

"There is one concern that's a valid one, and that's rabies, because we have had a lot of rabid raccoons here," she said. "You want to make sure that you don't leave any garbage out."

Wildlife gardens, like all gardens, aren't static. Jescavage-Bernard is losing not only her frogs, but also her only conifers, hemlocks, which are seriously endangered by the woolly adelgid. The next generation of maples may disappear as well because of browsing by the deer. Pure stands of beech are taking over. Other tree species may move in, she writes, but "diminution of biological diversity does not bode well, either for the forest or for the deer."

### IPM for Deer

"Don't just do something, stand there," is Karen Jescavage-Bernard's advice for deer-plagued gardeners. If you don't panic but take time to notice what's growing wild and unchewed on your property or in your neighborhood, you may discover all sorts of plants that deer can't stomach.

For example, her observation that nothing was left of her perennial bed except onion grass led her to discover the theory of BTS—Bad Tasting Stuff. Deer don't eat wild plants like dandelions, which are bitter, or sorrel, which tastes sour. They don't eat wild mints—and all members of the mint family, such as lavender, basil, sage, and bee balm, seem to be safe as well.

Interestingly, Lea Meyer (see page 8) made much the same discovery on the West Coast. She has a vast array of herbs in a rock garden and few are ever nibbled, she reports.

However, the tastes of black-tailed or mule deer in the West and white-tailed deer in the East are not always the same. Meyer found that deer rarely bother her daylilies; white-tailed deer see them as caviar.

The explosion in the white-tailed

deer population has gardeners throughout the Northeast and Mid-Atlantic threatening to retire their trowels. Nevertheless, Bernard couldn't find any studies on their food preferences. A popular publication on the subject from Cornell University, she found, was based on a California study that placed white-tail favorites like boxwood, holly, juniper, and pine on the list of deer-resistant plants.

So she embarked on some back-yard research that she admits is far from scientific. Deer tastes can change in a single season, she notes, if a severe winter or soggy spring forces them to eat something they've previously avoided. Like a kid made to eat broccoli, they may develop a real yen for the stuff. And deer aren't clones, she notes. "My own local herd hates hydrangeas, but two miles south live deer who browse the big flower clusters in broad daylight."

*Jescavage-Bernard's 52-page booklet is available for \$7.10 postage paid (\$7.43 in New York state) by writing to her at 529 East Quaker Bridge Road, Croton-on-Hudson, NY 10529.*



# Members' Forum

## "A Few Six-Packs"

The Chelsea America Flower Show in southern California on February 6, 1993, stank. It is amazing to me that the wonderful organization in England that sponsors such a fantastic and imaginative flower show annually could allow their name to be associated with such an insult. How anyone could consider a few six-packs of flowers set on the ground to be comparable is beyond me.

In my opinion, the advertising materials for the Chelsea America Flower Show were fraudulent. They showed pictures from the flower show in England and clearly indicated that the show in America would be similar.

I drove from northern California down to southern California, taking time off of work, to see the show. My expenses included gas to drive down and hotel bills for two nights. In a grand total of 45 minutes I had seen all there was to see. Half of the tent was empty, and there were more places to eat than there were to see flowers. Many of the booths merely advertised local nurseries, with just a few pots of flowers as examples of their work. It seemed that about half of the booths were just selling ordinary plants and books. Beautifully landscaped gardens were nowhere to be found.

All in all, it was a waste of time and money.  
*Kristine A. Howard  
San Jose, California*

## "A Cruel Joke"

What an embarrassing slap in the face to the very word "Chelsea," which used to be, in my mind at least, a word that was synonymous with beauty, elegance, luxury, pride, and caring.

I can imagine there are a couple of people who thought the show was a smashing success—the promoters. They must be extremely proud of this fiasco. By the looks of the thousands of people who came in good faith to attend this "thing," the promoters must have made out like bloody bandits. At \$5 to \$7 to park, and another \$10 per head at the gate, you've got to be wondering how they can sleep at night considering what they knew was inside on display.

The show, promoted as being "patterned after the world-famous Chelsea Flower Show of London," was a joke. It proved to be nothing like the slick, colored brochure that was used to promote it. We were not treated to "dozens of huge, open air exhibitions of model gardens, courtyard gardens, educational and scientific exhibits," either

in medieval-style tented pavilions nor expansive, outdoor gardenlike settings. As a matter of fact, you could have gotten a better show at any number of local California nurseries without paying a cent. What a cruel joke to play on the good-hearted, trusting, enthusiastic gardeners who traveled thousands of miles and paid out thousands of dollars to be dazzled.  
*Swami Gurupremananda  
Ben Lomond, California*

## "Terrible Disappointment"

A group of us traveled to Los Angeles from Santa Cruz, California, to attend the Chelsea America Flower Show. What a terrible disappointment it was. The exhibits were nothing like what were promised in the promotional literature. We should have listened to all the people in the parking lot who were complaining about it. But we had already driven too far and spent too much money not to give it a chance. The show really was as bad as they had warned.  
*Gary Chase  
Santa Cruz, California*

*In a six-page press release following the Chelsea America Flower Shows, show founder and chairman Joni Nelson said of the one in California: "Our exit polls, which were a statistically valid, random sampling of those who attended, demonstrated an overwhelmingly positive general reaction to the show, with only 10 percent of the random sampling expressing negative opinions. We are of course reviewing all comments carefully."*

*Nelson said that the California show was attended by 23,000 people, but had to be closed after only two days of its four-day run because of storm damage to its tented pavilion. A second show, later in February in West Palm Beach, Florida, was attended by 43,000. "Our exit polls were extremely positive and showed less than one percent negative opinions of the show," said Nelson. "We will certainly be our own toughest critics when it comes to the overall evaluation of both shows, and we are confident that with continuing support and suggestions from both the gardening industry and the public, we will be able to present even bigger and better Chelsea America Flower Shows in 1994."*

*The Royal Horticultural Society of England (RHS), which sponsors the famous Chelsea Flower Show in London each spring, sent a press release to its American members last winter stating that neither the sponsoring Chelsea America Foundation nor the Chelsea America Flower Shows have any*

*affiliation with the RHS or its show.*

*"The RHS has at no time given the Chelsea America Foundation or its proposed events any official recognition or endorsement," it said. The only U.S. flower show officially associated with the RHS is the Cincinnati Flower Show, which the RHS endorsed after three years of monitoring showed "the sustained high standards which are required for endorsement by the RHS."*

*If Joni Nelson is right in saying that only a small percentage of visitors were disappointed by the American shows, there must be many members of the American Horticultural Society who enjoyed either the California or Florida show. We would love to hear from you.*

## Deer Deterrent

I first found your articles on "Beanbag" amusing, but lacking credibility. [The deer-chasing terrier of the Morris Arboretum was featured in the March "Regional Notes" and an update in May.] However, when I read the proposed solution to the problem was a \$75,000 fence to prevent deer, I found myself in disbelief.

I spend every summer on a rather remote island in Lake Huron. No bridge, no roads. Naturally, wildlife abounds, especially deer. Deer loved my impatiens among other flowering and tender things. I would replant several times a season. Natives advised, "You just don't plant what the deer like!"

I tried all of the known repellants. After a concentrated search, I found Deer-Away. Now I have few problems with deer ravaging my flowers, including roses. I even protect my evergreens from winter browse. It is nontoxic to deer and humans, safe, and easy to apply. It certainly does not cost \$75,000. Neither does it interfere with the aesthetic beauty of the grounds as does fencing.

I find it hard to believe that your educated horticulturists are not aware of this well-researched and successful product.  
*Charles F. Weiss, M.D.  
Siesta Key, Florida*

*No one on our staff has tried Deer-Away. The pamphlet Dr. Weiss included with his letter indicates that the active ingredient of the spray form of this product is putrescent whole egg solids; the active ingredient in the powder form is powdered inedible egg solids.*

*While we at AHS generally do not endorse particular products, we are always interested in hearing from members about what works or doesn't work for them.*



# Mail-Order Explorer

## Fruits of the Orient

What's your most interesting edible? Do you, for instance, have the nut-bearing underwater vine known as Singhara Ling? Or the night-blooming Peruvian apple cactus, which has flowers eight inches across and fruits that taste like vanilla ice milk? If not, and if zucchini and tomatoes don't sound as appealing as these, you should get in touch with Jerry Black.

"Black is a modern-day Columbus," says Martin Waterman, a Canadian writer and plant breeder. "He's on the leading edge of nurserymen-explorers." The term is an apt description of Black, a former construction worker who founded Oregon Exotics Rare Fruit Nursery a decade ago. Twice Black has traveled through China, southeast Asia, Nepal, and India, botanizing all the way. Thus far his expeditions have yielded over 150 types of scion wood, many of them new introductions. According to Waterman, a director of the North American Fruit Explorers, that's no mean feat. "It takes a lot of courage and skill to go to another country and trudge through the wilds like that."

The best account of Black's adventures is the Oregon Exotics catalog. Although unpretentious in prose and format, "Black's catalog is overall one of the most unusual I've ever seen," says Lon Rombough, an Oregon plant breeder. The emphasis is on exotic edibles, most of them hardy to Zone 7 and some much hardier. Waterman, who breeds grapes in New Brunswick, calls Black "a godsend for northern growers." But there is plenty here to challenge southerners as well. In fact, Rombough thinks some selections are a little too challenging. For instance, Black offers the cherimoya, a small, tropical tree whose fruits taste faintly like pineapple. Says Rombough: "That's practically a greenhouse fruit in this country."

But if you're ready for a challenge, you might consider the Mekong dream tamarind, a beautiful, leguminous fern-leaved tree whose fruits, according to Black, are "rich, sweet, and deliciously chewy." Where the Mekong River divides Laos from Thailand, Black watched refugees roasting the tamarind's seeds for "a crunchy snack," while saffron-clad monks climbed into its boughs after the fruits. This variety can take only four degrees of frost, but tamarinds also make excellent indoor trees.

If you like citrus, consider the Australian razzlequat, a hybrid of the Chinese dwarf lemon and the Australian

desert kumquat, which Black also sells. In the wild, the kumquat commonly endures temperatures of 10 degrees. The razzlequat has survived chills nearly as severe without damage. Its inch-and-a-half, yellow fruit makes great jam or it can be eaten whole.



COURTESY OF JERRY BLACK

*Jerry Black and a local plant expert along the Vietnam-China border.*

Not all of Black's selections are as unusual as these, but even familiar fruit appears here in unusual forms. Rombough says Black is one of the few sources for pomegranates other than the 'Wonderful' cultivar. Black also sells an apple with pink flesh, evergreen cherries, and some very unusual passionfruits, like *Passiflora shennongjia*. This produces red-skinned, fuzzy fruits with a sweet orange pulp. Black says it's "extremely rare" even in its native range, the Qin Ling Mountains of central China.

The Qin Ling Mountains are a plant hunter's paradise. "There's just so much stuff there," says Black. But the region is notable for more than its plants. Local legend says it's home to a small, red-haired hominid, and some of its human inhabitants live in caves. It was here that Black found a tree bearing a "grain" like millet. That too is now part of his collection, but it's not for sale until he figures out what it is, and he hasn't yet found a botanist who can tell him. The area is forbidden to foreigners, by the way, and Black was arrested for going there.

Black is not the only source for everything he sells. He has a small selection of common fruits and nuts, and Rombough knows of other sources for some of the unusual plants too. For instance, the sea buckthorn (*Hippophae rhamnoides*), a type of Himalayan berry bush, is

cultivated in Europe. But to find even the more common exotica, Rombough says, "you would really have to know where to look."

Despite the nursery's name, not all of Black's stock is exotic. Among his native offerings are a number of interesting berries like the saskatoon and the buffalo berry. Black has even done some botanizing in this country, but not after wild plants. Eight years ago, he tracked down some orchards in California that the U.S. Department of Agriculture once used for experimenting with hardy citrus and mangoes. The orchards were abandoned but some of the stock is promising—and available from Black.

As a business, Oregon Exotics still has a way to go. The nursery is not open to the public but Jerry Shroyer, president of the Home Orchard Society, has visited it. "It's a small back-yard operation," he says. "It's unimposing—amateurish-looking." Black doesn't dispute the description, but says he took on two partners this year, and he hopes that a full-time staff of three will eventually improve things. At present, "we're always struggling, but we have more orders than we can handle." And filling orders usually takes precedence over building inventory. "If a plant's fairly new," he says, "maybe it's a fault not to keep it for five years until I have a couple hundred of them, but if I have five to sell, I'll sell them right away." Black's priorities have meant that much of his collection is only now going into propagation.

The size of his inventory may be frustrating, but Black's customers don't seem disappointed by its quality. "I've had good luck with what I've obtained from him," says Shroyer, who knows other Black customers and hasn't heard any complaints. Shroyer cautions that some risk is inevitable with plants as unusual as Black's, but "as far as the quality of his stock is concerned, I don't have any reservations about that." Waterman thinks the risks might be part of the appeal. "A lot of people want to try the Ferrari stuff—the high performance stuff."

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*If you would like to try some "high performance stuff," mail a \$2 check to Oregon Exotics Rare Fruit Nursery, 1065 Messinger Road, Grants Pass, OR 97527. Then be patient. Black will send you a copy of his next catalog when it appears in November.*



# Regional Notes

## Halting Hawaiian Extinctions

The Center for Plant Conservation has launched a major initiative to stop Hawaii's distinctive flora from sliding into extinction. "Hawaii is the greatest plant conservation challenge in the U.S.," says Peggy Olwell, the CPC's conservation programs manager. According to the CPC, 1,102 plant taxa are native to Hawaii, and 1,020 of these grow nowhere else. Some 97 Hawaiian plants are already thought to be extinct. Another 271—a quarter of the entire flora—are in immediate danger of extinction. In four cases, plants survive only in cultivation; in 16 others, only one wild specimen is known.

Development, agriculture, and forestry have ruined valuable habitat, especially in the lowlands, where most extinctions have occurred so far. A major problem farther upslope is competition from non-native species. Rats eat seeds that fall defenselessly in the open; pigs and goats can chew up entire hillsides and invasive exotic plants crowd out native communities.

The CPC is a national organization dedicated to conserving rare American plants. From its headquarters at the Missouri Botanical Garden in St. Louis, the CPC coordinates a network of botanical gardens and arboreta in conducting research on rare plants and



*The ma'o hau hele, a type of hibiscus, may go extinct in five years.*

cultivating them. As part of its Hawaiian initiative, the center added three more Hawaiian gardens to its network, bringing the number of participating institutions in the state to five. To oversee its activities in the state, the CPC also opened a field office at Honolulu's Bishop Museum.

Its new resources should make the CPC a major force in Hawaiian conservation. One of the center's priorities is bringing more endangered Hawaiian species into its National Collection of Endangered Plants, where they can be propagated and

studied. The collection is maintained by the gardens in the network. Currently it contains only 50 Hawaiian species.

Another goal is to develop a system of high-altitude outplanting sites, where rare, high-elevation plants can be cultivated. Tropical plants frequently produce seeds that can't be conserved by ordinary storage techniques. Instead, they must constantly be grown out. But since high-elevation plants generally don't grow well at low altitudes, existing facilities aren't suited to the task.

The CPC also hopes to increase coordination among plant conservation organizations. This is crucial, Olwell says, because of a bias in funding endangered species programs. What she calls "charismatic mega-fauna," like bears and eagles, attract a disproportionate share of the money. Nationally, plant conservation only gets about two percent of the funds, "so it's really important that we use our funds as carefully as we can, and not be duplicating our efforts."

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*For more information on the CPC's work in Hawaii, contact the Center for Plant Conservation, Missouri Botanical Garden, P.O. Box 299, St. Louis, MO 63166-0299, (314) 577-9450.*

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## Arizona Heirlooms Are Rediscovered

The Arizona Heirloom Fruit and Nut Regis-TREE has more than doubled its listings of historic trees, with the addition of 29 new entries for this year. "The Regis-TREE started out because we realized there were probably some important individual genotypes out there that we would lose unless we got them protected," says Bob Zahner, an emeritus professor of forestry who works with the program. The Regis-TREE lists individual trees or stands, rather than cultivars or species. Many of the trees listed have historical value as survivors of the ranches and mining towns of the old West. Some may have important horticultural potential as well, particularly for the development of drought-hardy fruit. In many cases, propagation material is available. The new additions bring the total number of Regis-TREE entries to 51.

Founded in 1991, the Regis-TREE is managed by Native Seeds/SEARCH, an organization dedicated to conserving Native American crops of the Southwest.

Zahner says the program focused initially on heirloom fruit trees but has now expanded to include native trees, especially those of importance to the state's native peoples. The Regis-TREE has eight other cosponsors, including the Nature Conservancy, the Boyce Thompson Arboretum, and Navajo Family Farms. The program is limited to Arizona but includes trees on both public and private land. Anyone can nominate a tree for listing.

The fruit trees added this year include a Chinese grapefruit, or pummelo, that was planted in Tucson in 1928. It produces a pear-shaped fruit with white flesh. Also listed is an 80-year-old apple tree growing in the Bradshaw Mountains. Its apples are striped red and yellow.

Among the native trees listed is an immense Emory oak (*Quercus emoryi*) near the town of Patagonia. Emory oak acorns were an important food for the region's native peoples, especially the Apache. In his *Natural History of Western Trees*, Donald Culross Peattie calls it

a "strange coincidence" that the area the Apaches once dominated "almost exactly coincides with the range of the species."

Other eminent natives include two ancient Sierra Prieta junipers (*Juniperus monosperma*) growing near Prescott. Believed to be between 800 and 1,200 years old, the junipers attracted conservationists' attention after hikers reported seeing similar trees cut for firewood.

Also listed are a dozen old orchards and ranches, dating from the late 19th century to the 1940s. Apples, pears, and peaches make up much of the stock but there are also figs, quinces, mulberries, dates, and apricots. Such variety is remarkable, given the arid environment—and the fact that many specimens are flourishing despite decades of neglect.

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*For the Regis-TREE list, advice on obtaining propagation material, or to nominate a tree, contact Native Seeds/SEARCH, 2509 North Campbell Avenue, #325, Tucson, AZ 85719, (602) 327-9123.*

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# All Aflutter in Florida

After walking through the doors of the new glass Victorian-style butterfly conservatory at Cypress Gardens, visitors are immediately surrounded by butterflies. Blue morphos dip and soar, their iridescent electric blue wings flashing in the sun; huge owl butterflies, which are active on cloudy days and in the evening near dusk, rest during sunny days suspended from tree branches; bright orange julias feast on passionflowers; zebras lazily flap their yellow and black striped wings; green malachites glide towards blue plates filled with fermenting bananas.

Cypress Gardens in Cypress Gardens, Florida, opened its Wings of Wonder butterfly conservatory earlier this year and treated representatives of several publications to a trip to see the tropical garden, which is filled with more than 1,000 free-flying butterflies representing 50 species from the Philippines, Malaysia, Costa Rica, Honduras, and Florida. None of the butterfly species are endangered and none are collected from the wild, garden officials stress.

Both education and entertainment are goals of Wings of Wonder. Inside the conservatory, two stations display chrysalises. Visitors can see butterflies emerging and watch as they slowly dry their wings, then fly out into the conservatory through openings in the bottoms of the display cases. Color photos of the butterflies throughout the conservatory serve as identification guides. Photos are accompanied by information about the butterfly's native habitat, larval host plants, and nectar sources. Plants throughout the conservatory are labeled.

At 5,500 square feet, Wings of Wonder is smaller than North America's largest free-flight butterfly conservatory—the Cecil B. Day Butterfly Center at Callaway Gardens in Pine Mountain, Georgia, which measures 8,000 square feet. But Wings of Wonder's smaller size may be to its advantage since both conservatories house the same number of butterflies. "The ceiling is lower here," Sharon Creedon, Cypress Gardens' director of marketing told us, "so the butterflies are closer to people."

The butterfly conservatory is in the Plantation Gardens area of Cypress Gardens. The area includes herb and scent, fruit and vegetable, and rose gardens. An outdoor butterfly garden is planted with pentas, Mexican flame vine, and pineapple sage to attract Florida butterflies.

Cypress Gardens has developed butterfly education programs for Florida students, who tour the conservatory and attend a butterfly seminar geared toward their age group. Students also receive a



COURTESY OF CYPRESS GARDENS

*A white peacock butterfly in the Cypress Gardens butterfly conservatory.*

"Kid Guide" to the conservatory, which contains information about metamorphosis and butterfly gardening and includes butterfly facts, diagrams of the conservatory and outdoor butterfly garden, word games, a dictionary of butterfly terms, and descriptions of butterflies with pictures to color. Butterfly field guides, books about the life cycles of butterflies, and picture story books for younger children are available in an adjacent gift shop.

In planning the butterfly conservatory, Cypress Gardens staff submitted a list of 300 tropical butterflies to the Florida De-

partment of Agriculture. The agriculture department narrowed the list down to 50 species that wouldn't harm Florida plants if any of the butterflies inadvertently escaped. The butterflies are raised on farms in Costa Rica, the Philippines, Honduras, and other locations and shipped in chrysalis form to Cypress Gardens. Importers feel that these butterfly farms are a boon to the economies of developing countries. "Eventually we'd like to get a permit to raise the butterflies here," Creedon told media representatives. That may take two to three years, but would provide greater educational opportunities and allow easier access to the butterflies.

Cypress Gardens, an Anheuser-Busch theme park located near Winter Haven, Florida, is known for its botanical gardens; seasonal flower festivals featuring mums, poinsettias, and floral topiaries; and water ski shows. The park also offers a short boat tour around Lake Eloise, where visitors might see alligators and a variety of birds including ospreys, herons, and cormorants. —Mary Beth Wiesner

*Managing Editor*

*Cypress Gardens is at 2641 South Lake Summit Drive in Cypress Gardens, Florida, midway between Orlando and Tampa. For more information write P.O. Box 1, Cypress Gardens, FL 33884 or call (813) 324-2111.*

## Some Very Highbush Blueberries

If you don't think of blueberries as tree fruit, then you probably haven't been to the Atlanta Botanical Garden lately. The garden recently enlarged its blueberry collection to about 50 species, according to Ron Determann, conservatory superintendent. All these blueberries are epiphytes—plants that grow on trees without parasitizing them. The additions come from an exchange of propagation material with North Carolina State University. The new plants make the Atlanta display one of the largest in the country.

To botanists, "blueberry" means an entire tribe of the Ericaceae, the heath family. To berry pickers it means only a few species in one heath family genus: *Vaccinium*. Various other berries, like cranberries and bilberries, also belong to *Vaccinium*. But epiphytic blueberries belong to other heath genera, native mainly to the Andes region of South America. The number of epiphytic



JIM FITTS

species is uncertain, but there are thousands, and they are adapted to a wide range of conditions.

Many of the epiphytes produce

edible berries, and Determann thinks development for fruit production is possible. But that's not their most obvious virtue. Even if you wouldn't go up a tree after blueberries, you might want to admire them from the ground. "They have great potential as ornamentals," Determann says. "They're absolutely magnificent." You can see the berries at the garden's Fuqua Conservatory.



# Sensuous Gardeners at Williamsburg

**B**ig horticultural gatherings are usually reserved for pontificating on the nobility of our purpose as gardeners. Not so the 47th Annual Williamsburg Garden Symposium, where guest speakers shamelessly indulged in pure sensationalism. Co-sponsored by the American Horticultural Society and the Colonial Williamsburg Foundation, the symposium brought gardening experts and enthusiasts from around the country to this historic Virginia village to explore the scents, sounds, and sights of the garden, or, as symposium chair Lawrence Henry put it, "how gardening seizes upon the senses."

No sense seizes upon the memory like the sense of smell, and most gardeners need only to hear the name of some aromatic favorite to conjure up a whiff. Writer and rose grower Rayford Reddell had no difficulty recalling some of his favorites for the audience. It might seem ironic that Reddell, who holds a doctorate in audiology from Stanford University, would be asked to lecture on fragrance. But he has tended an extensive fragrance garden and co-written a book on the topic. He even identified the rose 'Color Magic' by its scent while blindfolded.

*Whales were programmed by God to live in the ocean; man was programmed by God to live in a garden.*

— Robert Marvin

The olfactory sense is subjective as well as evocative. "Fragrance is in the nose of the smeller," Reddell said. He reveled in a long list of plants well-known for their scents. "Daphne is universally appealing. I have heard it described as smelling like boiling toffee. I think it smells like toasted macaroons." The scent of witch-hazel is psychologically addictive, *Magnolia soulangia* has an overtone of citrus, 'King Alfred' daffodils remind him of talcum powder, and the sweet smell of *Amaryllis belladonna* is as seductive as its common name of naked-lady.

Roses are synonymous with scent, even for nongardeners, and it is with roses that Reddell is most intimate. One of the West Coast's best-known growers of roses, he grows over 2,000 varieties at Garden Valley Ranch in northern California, a



STEVE DAVOLT  
*The Governor's Palace at Williamsburg.*

designated All-America Rose Selections Test Garden. He noted that roses run the entire spectrum of floral fragrance, from heavy-scented varieties like 'Fragrant Cloud' and 'Double Delight' to *Rosa banksiae*, which smells like violets, and eglantine, "whose foliage smells precisely like green apples."

Writer, lecturer, and television host Roger Swain opened his presentation on the sounds of the garden with a sound check bellowed out to the audience. "CAN YOU HEAR ME OUT THERE?"

Swain played an audiocassette that demonstrated what a rich symphony of sound is orchestrated for us in our gardens: the trickle and splash of running water, the tinkle of wind chimes and bird scarers, the buzz of pollinating bees, a chorus of bullfrogs, cicadas, and crickets. Birds alone form a whole section of the garden philharmonic: cooing, trilling, squawking, cawing, warbling, chirping. After sundown we might even hear an owl hooting a nocturne.

But Swain warned that we can have too little or too much of a good thing. Referring to Rachel Carson's environmental classic *Silent Spring*, which graphically related the lethal effects of pesticides, he cautioned that total silence usually indicates something direly amiss in our environment. We find comfort in the routinized sounds that make up our audible world and, like villagers who have failed to hear the "all's well" of the town crier, we instinctively go on the defensive when we miss these reliable sounds.

Excessive noise, however, is the opposite side of the same coin. Swain called the cacophony of lawn mowers, chain saws, leaf blowers, chipper-shredders, and weed cutters "the sound of the serpent in the garden of Eden," and warned that we are becoming desensitized by the chaos of

noise we generate. He would have us add a new dimension to our "environmentally sound" gardening techniques by curbing our use of raucous power tools.

While our acoustic environment may be getting out of hand, we still control our field of vision wherever we garden. Foremost in that vision is the presence of color. Few people know more about the practical application of plant color than Katy Moss Warner, general manager of horticulture at Walt Disney World.

"Color," she said, "is the primary element that announces the character of a place, that drives the emotions." Warner emphasized the use of signature plants and color cues to signal changes of place and season: planting wildflower mixes to herald the coming of spring, reds in the summer sun, and an autumnal color palette of burgundy, yellow, and rust. Walt Disney World marks the onset of the winter holiday season in its own special way. "We take out 10,000 cherries and put in 10,000 poinsettias overnight."

Warner observed that in our quest for bold new color, we often overlook the obvious green that makes up most of our garden. Bedding plants bloom and fade but foliage is here to stay.

Finally, she said, we should not try to dictate every last detail of design but allow a margin for nature to take its course. "One of the most important things we do is allowing for serendipity."

What is the outcome of admitting all these melodious sounds and fragrant and colorful plants into our garden?

"To create an environment that develops and nurtures healthy human beings," said South Carolina landscape architect Robert Marvin. Marvin, the keynote speaker at the Williamsburg symposium, sees landscape design as a means of bringing people closer to nature and to each other.

What a client once said to him is now a touchstone for Marvin: "Whales were programmed by God to live in the ocean; man was programmed by God to live in a garden." Most of Marvin's work has been aimed at re-creating that garden. Our landscape designs, he believes, should commune with the environment in an organic, unified whole and not be an imposition on the land. In nature, we find the basic design elements of dominance, repetition, contrast, rhythm, and variation. As illustration of nature's art, a giant snow white camellia with golden anthers appeared on a screen behind Marvin. He intimated that there is a beauty and grand design immanent in nature that we should use as a model for our own gardens.

—Steve Davolt  
Editorial Assistant





# AHS

## 48TH ANNUAL MEETING

LAKE BUENA VISTA,  
FLORIDA  
OCTOBER 8 TO 10

## PROGRAM

PROGRAM ART BY LYNDIA TERRE





# WELCOME

Celebrate the magic of gardening at the American Horticultural Society's 48th Annual Meeting in Lake Buena Vista, Florida. You'll discover the gardening secrets of our 1993 Award Winners and other speakers, from gardening in the shade to discovering new plants in China to uncovering the mysteries of compost. You'll go behind-the-scenes at the WALT DISNEY WORLD® Resort and learn how its horticultural practices can transform your own back yard.

## REGISTRATION FEE

Full registration fee covers all daily programs as listed, registration materials, lunches, entrance fees, ground transportation to events, and 1993 President's Reception and Awards Banquet. Not included are children's programs, hotel, airfare, personal items, and meals not specified.

## CANCELLATIONS

A full refund, less \$50 for booking expenses, will be made if written cancellation is received by September 24. No refunds will be made after September 24.

## HOTEL

Our headquarters is the Club Suites at Disney's Village Resort, 1901 Buena Vista Drive, Lake Buena Vista, Florida. Rates for AHS members are \$130/night, single or double, plus 6% sales tax and 4% resort tax. Children 17 years of age or under will be permitted to share a room with an adult at no additional charge. Make your reservations by calling (407) 934-3199. The first night's deposit is required when

the reservation is made. Be sure to mention that you are with the American Horticultural Society and to make your reservation by September 7 to guarantee the special meeting rate.

## OFFICIAL AIRLINE

Delta Airlines Inc. and VIP Travel, in cooperation with AHS, are offering special rates to the meeting. These fares are based on Delta's published round-trip fares. Certain restrictions may apply and seating is limited. To

take advantage of these discounts, call Ellie Turner, VIP Travel, at (800) 451-5439, EDST 9 a.m. to 5 p.m.

## GROUND TRANSPORTATION

Mears Transportation Group airport shuttle is available to Lake Buena Vista, WALT DISNEY WORLD Resort, with drop-off service at the front door of your hotel. \$13 one way, \$23 round trip. Located at curbside baggage claim.

## AHS ANNUAL MEETING REGISTRATION FORM

*Register early! 10% discount for registrations postmarked before August 8.*

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City / State / Zip: \_\_\_\_\_

Daytime Phone: \_\_\_\_\_ AHS Member #: \_\_\_\_\_

Spouse / Guest Name: \_\_\_\_\_

Address: \_\_\_\_\_

		Number of Participants	Total
<b>Full Registration</b>			
Includes all events October 8 to 11	\$395	_____	\$ _____
OR			

### Single Day Registration

Saturday, October 9	\$170	_____	\$ _____
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Sunday, October 10	\$225	_____	\$ _____
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Nonmembers must add annual dues @ \$35 \$ \_\_\_\_\_

Optional: President's Council Membership \$ \_\_\_\_\_

☐ \$1,200 (single) ☐ \$1,500 (couple) \$ \_\_\_\_\_

Minus discount (10%) prior to August 8, 1992 \$ \_\_\_\_\_

**Total Enclosed** \$ \_\_\_\_\_

Special Services Needed (please specify): \_\_\_\_\_

*Return this form with your payment to: AHS Annual Meeting,*

*7931 East Boulevard Drive, Alexandria, VA 22308-1300.*

*For more information call (800) 777-7931.*





# PROGRAM

## OCTOBER 7

### 1 p.m.

AHS Board of Directors  
Committee Meetings  
*Conference Center*

## OCTOBER 8

### 9 a.m. to 4 p.m.

Board of Directors Meeting  
*Conference Center*

### 12 noon to 8 p.m.

Registration  
*Gallery, Conference Center*

### 7 p.m. to 9 p.m.

Members Forum  
*Grand Oaks Room*

### MODERATOR:

Dr. Julia Rappaport  
AHS Board Member

### WELCOME:

George C. Ball Jr.  
AHS President  
Katy Moss Warner  
AHS Board Member  
and WALT DISNEY  
WORLD® Resort  
Horticulturist

## OCTOBER 9

### 7:30 a.m. to 8:30 a.m.

Continental Breakfast  
*Gallery, Conference Center*

### 8 a.m. to 1 p.m.

Registration  
*Gallery*

### 8:30 a.m.

Plenary Session  
George C. Ball Jr. presiding  
*Grand Oaks Room*

### 9 a.m. to 11 a.m.

"The New American  
Horticulture"

Dr. H. Marc Cathey

"Gifts From the Garden"

Suzanne F. Bales

### 11 a.m. to 11:15 a.m.

Break

### 11:15 a.m. to 12 noon

"Compost"

William F. Brinton

### 12 noon

Picnic on the patio

### 1:30 p.m.

Buses leave for EPCOT®  
Center

"Gardens of the World"

### 5 p.m.

Evening free to explore  
EPCOT Center  
Return at your leisure

## OCTOBER 10

### 7:30 a.m. to 8:30 a.m.

Continental Breakfast  
*Gallery, Conference Center*

### 8 a.m. to 1 p.m.

Registration  
*Gallery*

### 9 a.m. to 12 noon

#### TRACK A

"Treasures From China"

Theodore Dudley

"Telling the Story: Three

Decades With Disney"

Morgan "Bill" Evans

"Paradise Regained"

Dr. William M. Klein Jr.

#### TRACK B

"The Natural Shade Garden"

Ken Druse

"New and Useful Plants for  
the '90s"

Don O. Shadow

"Wonderful World of  
Perennials"

Andre Viette

### 12 noon

Lunch on the patio

### 1:30 p.m.

Buses leave for WALT  
DISNEY WORLD Resort  
"Planting Ideas: The Art  
and Science of Gardening  
at the WALT DISNEY  
WORLD Resort"

### 5 p.m.

Buses return to hotel

### 6:45 p.m.

Buses leave for Disney's  
Grand Floridian Beach  
Resort

### 7 p.m.

President's Reception and  
Awards Banquet  
Dr. William E. Barrick, AHS  
Second Vice President, will  
present the 1993 AHS  
Awards

### 10 p.m.

Return to Disney's Village  
Resort







# HIGHLIGHTS

## SPEAKERS

**Suzanne F. Bales** is an AHS Board Member from Bronxville, New York. She is the author of *Gifts From Your Garden* and five other books in the Burpee American Garden Series, and is also a garden photographer.

**William F. Brinton** is an AHS Board Member and president of the Woods End Research Laboratory in Mount Vernon, Maine. He is also executive director of the Woods End Institute and a consultant on composting problems.

**Dr. H. Marc Cathey** is national chairman for florist and nursery crops review with the Agricultural Research Service. Cathey, a long-time AHS Board Member, was AHS President from 1974 to 1978. He won AHS's Liberty Hyde Bailey Award in 1981.

**Ken Druse** is an award-winning photographer and author of six books, including *The Natural Garden* and *The Natural Shade Garden*. He lives in Brooklyn, New York.

**Theodore Dudley**, the lead scientist and research botanist in charge of taxonomic and nomenclatural research at the U.S. National Arboretum in Washington, D.C., has traveled in the People's Republic of China and other locations on plant explorations.

**Morgan "Bill" Evans** was hired by Walt Disney in 1954 to design, install, and landscape a new theme park—the now famous DISNEYLAND® Park. Evans retired from Walt Disney Imagineering in 1975, but continues to work as a landscape consultant for the organization.

**Dr. William M. Klein Jr.** is director of the Fairchild Tropical

Garden in Miami, Florida. He was director of the Morris Arboretum of the University of Pennsylvania for 14 years.

**Don O. Shadow** is the president of Shadow Nursery Inc. in Winchester, Tennessee, a wholesale nursery specializing in woody ornamentals and rare and unusual plants. He is currently vice president of the Southern Nurserymen's Association.

**Andre Viette**, an AHS Board Member, developed Andre Viette Farm and Nursery in Fishersville, Virginia, which grows over 3,000 varieties of perennials and has its own tissue culture laboratory.

## CHILDREN'S PROGRAMS

The "Wonders of WALT DISNEY WORLD® Resort" are unique, behind-the-scenes learning adventures designed to spark the imaginations and fuel ambitions of young people, ages 10 to 15, interested in wildlife, art, or entertainment. For reservations or more information, call (407) 354-1855.

Kindercare babysitter service is available for guests either in your room or at the Kindercare Learning Center located in Lake Buena Vista. For more information call (407) 827-5437.

Arrangements must be made directly through the providers.

## PROGRAM TOURS

### "Gardens of the World"

A WALT DISNEY WORLD Resort horticulturist hosts this informative 3½-hour study of basic design concepts, theme development, and practices that have been instrumental in creating the landscapes of EPCOT® Center World Showcase—from the wild

jungles of Mexico to the finely manicured landscapes of France. Emphasis is placed on how you can apply the horticultural principles developed at WALT DISNEY WORLD Resort to your own garden.

## "Planting Ideas: The Art and Science of Gardening at the WALT DISNEY WORLD Resort"

WALT DISNEY WORLD Resort gardens are the result of countless hours of planning, experimentation, production, and behind-the-scenes horticultural support. We'll explore the WALT DISNEY WORLD Nursery and Tree Farm, observe ongoing operations, and gain insight into horticultural specialties such as instant landscaping and the production of topiaries and hanging baskets.

## EPCOT Center

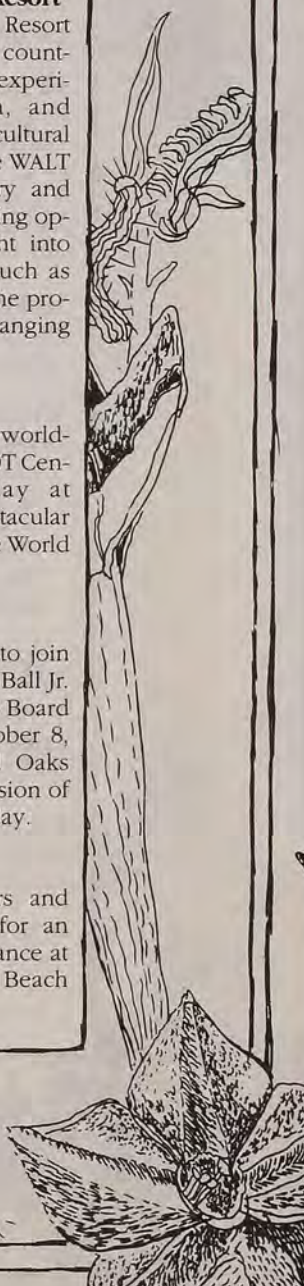
Explore the marvel of worldwide wonder that is EPCOT Center. Complete the day at "IllumiNations", the spectacular laser and light show at the World Showcase Lagoon.

## MEMBERS FORUM

All members are invited to join AHS President George C. Ball Jr. and members of the AHS Board and staff on Friday, October 8, at 7 p.m. in the Grand Oaks Room for an open discussion of the issues facing AHS today.

## AWARDS DINNER

Join our Award Winners and friends—old and new—for an evening of Victorian elegance at Disney's Grand Floridian Beach Resort.





# AHS Bulletin Board

## Compost Park Completed

After nearly three years of development, the American Horticultural Society's National Home Compost Park is complete.

Generous funding from the Stanley Smith Horticultural Trust in San Francisco made it possible to erect a visitors' pavilion, espaliered pear fence, and a series of pergolas and lattice fences to support the park's edible landscaping.

Program Director Joe Keyser says the edible landscaping, which vies with his solar-powered compost tumbler and worm boxes for popularity, reflects both a personal bias and his interest in showing visitors a "closed loop ecology," where healthy soils produce healthy and nourishing fruits and vegetables for people, and where people compost their kitchen and garden scraps to produce healthy soil. "Feeding the soil with compost," he says, "helps feed all of us."

Landscape designer Pam Grenade volunteered to design four major planting areas to complement the 80 different compost systems: gourds and vines, including hops that shade large tumbling units under a pergola; grapes that grow over vermicomposting boxes; a collection of currants, blueberries, gooseberries, and figs; scores of culinary herbs and edible

flowers; *Amalan- chier canadensis*, *Cornus kousa*, and several unique varieties of elderberry; and heirloom and unusual vegetables, many selected from the seed banks at Southern Exposure Seed Exchange in Virginia.

Many of the park's passive compost bins will continue to serve double-duty, with wire cage bins doubling as inverted tomato cages, providing support and a steady supply of nutrients for the vines, while the vines provide a sumptuous camouflage. Other bins, primarily filled with shredded leaves, will provide a growing medium for potatoes and sweet potatoes. Keyser pointed out that one such bin produced almost 18 pounds of sweet potatoes last fall—and

a good 50 pounds of finished compost.

"We hope that its finished landscaping will increase the National Home Compost Park's value as a showcase for compost innovation and creativity," said Keyser.

Admission to the park is free. Large groups may wish to contact the Society at (800) 777-7931 for special tour arrangements.



KATHLEEN FISHER

A section of the National Home Compost Park during construction.

## 2,400 Enjoy April EcoFest

EcoFest '93, an environmental extravaganza co-sponsored by the American Horticultural Society and the Virginia Cooperative Extension Service, was a tremendous hit for the more than 2,400 visitors who joined AHS staff, members, and volunteers at River Farm on April 3 and 4.

Many came for the lectures on organic gardening and lawn care, hands-on demonstrations of mulching and reel mowers, and presentations, displays, and plant sales by organic growers and edible landscapers. They learned about solar and wind power, recycling, composting, back-yard wildlife habitat development, water quality protection of the Chesapeake Bay and other natural areas, and cars powered by electricity, solar power, and natural gas.

In between talks and demonstrations, they and their family members took time to enjoy a steady stream of entertainment, with everything from recycling musicians to compost mime by Penn State Master Gardeners to popular "eco-musical"



VIRGINIA TECH DEPARTMENT OF COMMUNICATIONS

A volunteer from Oakridge Elementary School in Arlington, Virginia, explains the black rat snake's role in controlling garden pests to an EcoFest visitor.

groups like Magpie and the rain forest music of Bill Perkins.

AHS Program Director Joe Keyser says EcoFest was intended to serve as a model program, both for similar events at River Farm and for communities around the country. "Rather than promoting environmental gloom and doom, EcoFest celebrated new opportunities—new choices for gardeners and homeowners that will lead to sustainable lifestyles."

It also represented an important partnership between several local, state, and federal government agencies, private businesses, and more than 40 nonprofit conservation and educational organizations. Through the collective efforts of these varied participants, EcoFest was able to present a well-rounded program of information and entertainment, exceeding that attainable by any one organization or special interest group.

Plans are underway for the public-private funding and development of EcoFest '94, scheduled for Earth Day weekend, April 23 and 24, 1994.



# Hobhouse Designs AHS Children's Garden

Among the children's gardens being featured at the American Horticultural Society's River Farm headquarters this summer is one designed especially for AHS by British author and garden designer Penelope Hobhouse.

Hobhouse was in the Washington, D.C., area in February to promote her new book, *Gardening Through the Ages*. Following an AHS-sponsored lecture on garden history in Old Town Alexandria, Hobhouse came to River Farm for a luncheon and toured the site of the future children's gardens with Maureen Heffernan, AHS education coordinator.

"She was immediately very enthusiastic about the concept, and we were delighted and surprised when she accepted our invitation to design a garden," said Heffernan.

The garden will feature a "Wendy House" to evoke the one Peter Pan built for Wendy Darling to live in while serving as mother to his lost boys in *Never Never Land*. Tall sunflowers, hyacinth beans, and wattle arches will create an air of mystery and a space where children can hide. So they won't worry that they really have been spirited off to a land where pirates roam, they will be able to see friendly adults across a flower bed of coreopsis. The project is being overseen by Hobhouse's associate, Simon Johnson. It will also include willow sculptures of



BRIDGET FLINT

*Students from Carl Sandburg Intermediate in Fairfax County, Virginia, help install a Discovery Pond. One of 13 children's gardens at River Farm, it was designed by Kibbe Turner of Wildlife Habitats in Gaithersburg, Maryland.*

two children done by artist Serena de la Hey of Ilsington House at Somerset.

The wattle arches will be made at the English Basket and Hurdle Center, also in Somerset. For three generations the center has made willow garden accessories from the pliable "withies" that grow every year

on Somerset's peaty bogs.

Five of the 13 gardens, which can be seen at River Farm through late October, were featured in our May News Edition. Four more are described on the next three pages. Three other gardens were designed and planted by local school children.

## Bhimani-Wheeler Alphabet Garden

In a long, narrow garden backed by a red brick wall with climbing ivy, northern Virginia landscape designers Leena Bhimani and Kathleen Wheeler have created a garden intended to appeal to preschool and kindergarten children.

"We wanted to mix the familiar with the new in ways that stimulate and excite these young viewers," says Wheeler. "We'd like them to discover that the outside world—the world of the garden—is fun and interesting."

Bhimani, speaking from her experience as the mother of three children, adds: "These young children see everything as novel. Nothing is commonplace to them. Many sensations that older children and adults accept casually—the play of shadows in foliage, associations of touch

and smell—are fresh and exciting to the young ones."

*"The play of shadows in foliage, associations of touch and smell—are fresh and exciting to the young ones."*

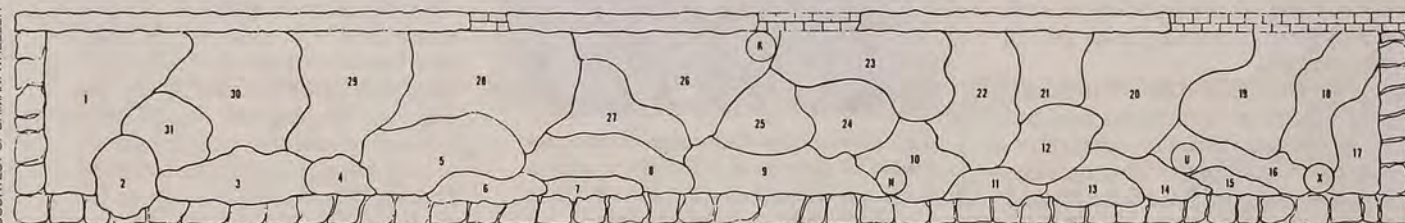
—Leena Bhimani

Simple excursions strong in sensory experiences help young children relate unfamiliar surroundings to other things

going on in their lives. Most four-year-olds recognize capital letters and can associate the alphabet with their external world. In Bhimani and Wheeler's alphabet garden, brightly painted wooden letters are linked to plants, animals, and other pleasant things typically found in and around a garden.

The letter "A" is painted with apples and ants, and is surrounded by asters. "L" is in a planting of fuzzy lamb's-ears. "P" is near a planting of pussy-toes, and nearby rocks are stenciled with cat tracks. Many of the flowers the designers chose bloom in bright pinks, oranges, yellows, and blues. Unifying these strong and diverse colors is a ribbon of gray foliage, and sculptures help add year-round interest.

COURTESY OF BHIMANI-WHEELER





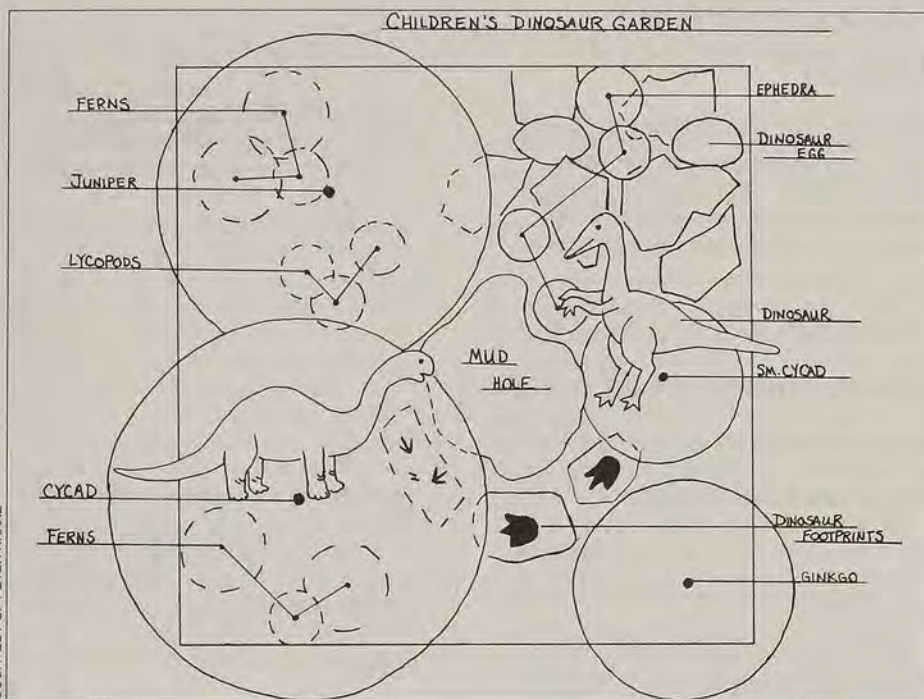
## Peter Kranz's Dinosaur Garden

Drawings and movies about dinosaurs often show them nibbling on palm trees or jungle vines or wallowing in a stream munching on rushes. But that never happened, notes paleontologist Dr. Peter K. Kranz, because those plants evolved after dinosaurs became extinct. Flowering plants, or angiosperms, were just coming into their own during the dinosaurs' last days.

*"For the dinosaurs, there was no winter, no spring—just an endless summer of various shades of green."*

—Peter Kranz

COURTESY OF PETER KRANZ



"Imagine a world without flowers!" says Kranz. "For the dinosaurs, there was no winter, no spring—just an endless summer of various shades of green."

Nevertheless, all manner of interesting plants will be found in River Farm's dinosaur garden, similar to one designed by Kranz and students at the School Without

Walls for the U.S. Botanic Garden in Washington, D.C. There are cycads and tree ferns, which look like palms, and climbing ferns, which look like vines. There will also be tiny ferns and club moss and liverworts to take the place of grass, which also evolved after the dinosaurs. To make the scene seem more

real, there will be fossil foot prints collected by volunteers and students near Coopersburg, Pennsylvania. The prints, from two-legged dinosaurs, are some 210 million years old.

"To see something similar, in its natural habitat, you would need to go to the mountain forests of New Zealand," says Kranz.

## Campbell and Ferrara's Whimsical Garden

"While it may seem that 'A Child's Garden' is all fun and games, silliness and whimsy can teach both children and adults about the plant world," says Jeff Minnich of Campbell and Ferrara Nurseries in Alexandria, Virginia.

The center structure of the garden is a trellis covered with flowering vines like

the hyacinth bean, which was grown by Thomas Jefferson at Monticello. A color wheel reminds visitors of the marvel of color and the many differences in intensity and hue. A vegetable garden features edibles of odd shapes and strange names and heirloom vegetables to teach children about the parentage of the vegetables they

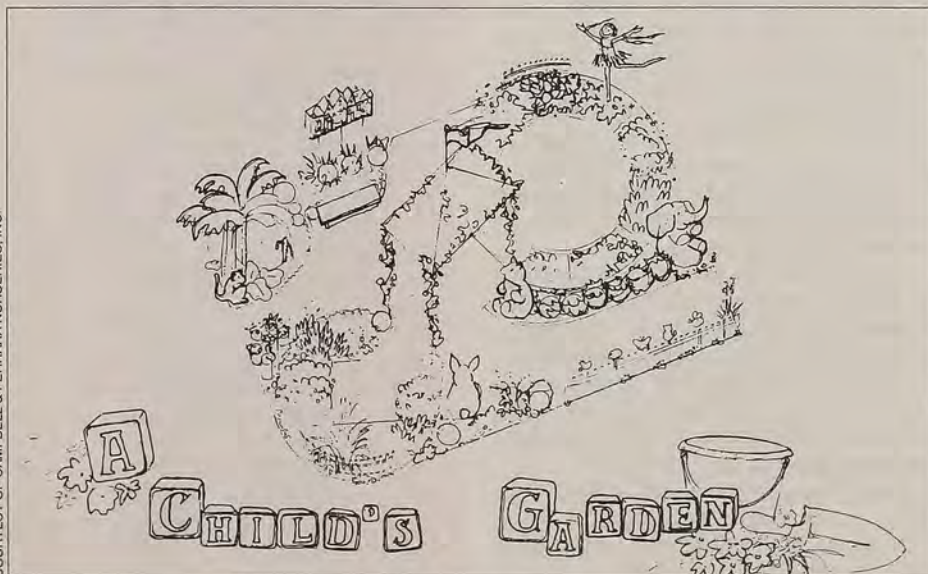
eat—or refuse to eat—today. Herbs and other aromatic plants are grown in assorted flue pipes at different heights to encourage touching and smelling by children of all sizes.

Campbell and Ferrara uses a "zoo" to show why a particular plant—such as butterfly weed, lamb's-ears, or hen-and-chicks—got its common name. Topiaries demonstrate how plants can be manipulated to have different meanings. A bright-colored birdhouse suggests the importance of birds in the garden, not only for insect control, but also for the pure joy of motion and song.

A water garden surrounded by coarse, tropical foliage such as elephant's-ear and banana plants illustrates the diversity of leaves and textures and the differences in scale that can occur between one part of a garden and another. The highlight of this fanciful garden may be the ballerina scarecrow who has a stuffed bird on her shoulder, as if to assure the birds that she's not that scary, after all.

Says Minnich: "We hope that after seeing so many aspects of gardening in a whimsical and joyous way, children will walk away with images that will encourage them to garden throughout their lifetimes."

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# Alastair Bolton's "Ditch"

"Quite possibly the word 'ditch' conjures up a rather unfortunate image," says Alastair Bolton. "But for a child with the freedom to explore and inquire, it can mean an incredible learning experience."

*It's child's play to build a dam to form a small pond where we can observe frogs and tadpoles.*

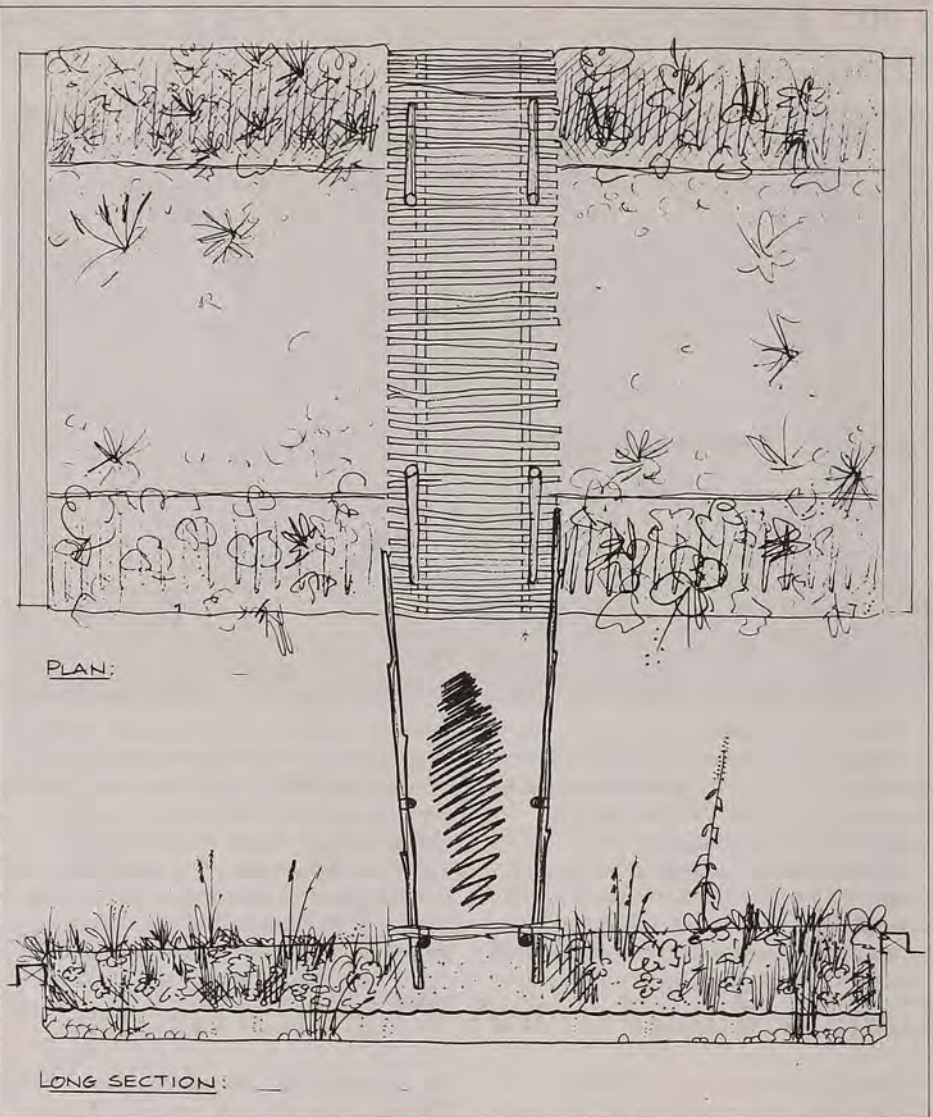
—Alastair Bolton

Bolton, a former architect who served as a horticultural intern at the American Horticultural Society's River Farm headquarters from 1991 to 1992, has since been working as the Dorothy Jordan Chadwick Fellow at the Asian collection of the U.S. National Arboretum. In designing his ditch garden, Bolton recalled the large garden of his own childhood, filled with rose beds, a vegetable garden, fruit trees, three ponds, and a vast rockery.

"The better climbing trees—chestnut, willow, and oak—were along the border between garden and open country. So too were the ditches!"

Essentially a drainage channel, the ditch has become a substitute for the more natural stream in our man-made landscape. Depending on the volume of water to be conducted, it varies in width and depth. Older ditches, some hand dug or silted up, are narrower and shallower and the banks are not so steep since the

ILLUSTRATIONS COURTESY OF ALASTAIR BOLTON

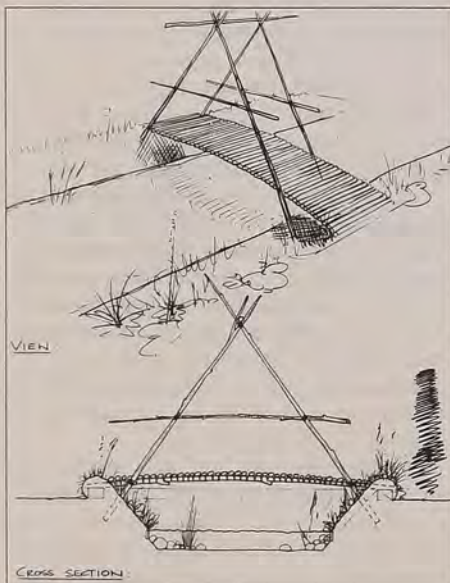


earth has slumped to a natural slope.

A ditch can be enclosed by trees or hedges. It can be dry, forming a "subterranean" path. It can be mucky and full of tall aquatic plants and pond life, or full of old tree trunks. It's easy to imagine the potential for observation of natural phenomena and for creative expression.

"It's child's play to build a dam (we have all done it) to form a small pond where we can observe frogs and tadpoles," Bolton says. It's nearly as easy to span a narrow ditch with logs to build a bridge or shelter—one that is below ground level and quite secret from the adult eye.

"The possibilities are endless: recently cut back hedge growth like ash and hazel saplings built into the side of a wide bank, covered with burlap and sod, makes the most invisible of shelters for observation of nature—ducks, rabbits, and blackbirds mating and raising their offspring, aquatic creatures, beavers, crows, and less dynamic but equally fascinating, seasonal change in the hedge plants and trees. Is there more a child could need for understanding natural phenomena?"



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# Author, Storyteller, Symposium Banquet Speakers

Gardens as fun, rather than a chore, will be the theme of banquet speakers at the American Horticultural Society-sponsored symposium "Children, Plants, and Gardens: Educational Opportunities" in Chevy Chase, Maryland, August 12 to 14.

Speaking at the banquet on August 13 will be Sharon Lovejoy, author of *Sunflower Houses* and an in-progress companion volume, *Hollyhock Days*, and Larry Johnson, a Minneapolis-based storyteller.

Lovejoy decided to title her talk "Long, Straight Rows are Such a Bore! Gardens Shouldn't be a Chore!" after she received slides illustrating a children's garden program. When she saw the first slide of children laboring over a perfect row of vegetables, her thought was "Ouch!" Her slide presentation will include dozens of simple ideas to stimulate children of all

age groups. "Gardens needn't be expensive or complicated," she says, "but they must be innovative and subtly impart a respect for a garden and the myriad life forms that inhabit a healthy garden."

Lovejoy's book, *Sunflower Houses*, stresses outdoor games and lore that she enjoyed as a child: clover chains, hollyhock dolls, and firefly lanterns.

Lovejoy is a naturalist at the Morro Bay Museum of Natural History and has worked as a naturalist/interpreter for the Smithsonian Institution among the islands of Baja California. But most of her time is devoted to Heart's Ease, a community garden and herbal gift store she established in the historic town of Cambria, California, below Big Sur. The 1877 farmhouse that now serves as the shop was scheduled to be demolished for a mini-mall, but Lovejoy convinced the property

owner, actress Angela Lansbury, to sell it to her instead. A tot's garden in one corner, filled with plants especially attractive to children, serves as an idea garden for visitors.

If anything is fun for children, it's storytelling. The second banquet speaker will be Larry Johnson, a "master storyteller with an environmental bias." Johnson says he started his first garden at the age of nine. In 1974, he planted a garden at a boys' camp where he was working, and ever since he has been using his storytelling abilities "trying to get children into gardening wherever I could."

As a teacher at Pillsbury Elementary School in Minneapolis, he uses a medium that children can relate to all too well—videos—to teach healthy alternatives, such as making "commercials" for nutritious foods from the garden and creating video letters about gardens to share with other schools and institutions.

One of Johnson's heroes is George Washington Carver, the Tuskegee Institute agricultural scientist, whom he quotes as saying, "You murder a child if you say keep out of the dirt. Dirt is where the life is." Just as Carver found 300 uses for a peanut, Johnson contends that what most people call garbage can be endlessly recycled, and proves it by making "recycled music" with old garden hoses, heavy metal water faucets, and tent poles.

## Symposium an International Event

Although the AHS-sponsored symposium on children and gardening is billed as a "national" event, its 65 speakers come from Europe and Canada as well as all over the United States.

Phillip Swindells, a well-known author and water-gardening expert from North Yorkshire, England, will be speaking on "The Aquatic Environment: Bringing Water Features Into Gardens for Teaching." Swindells has written a dozen books on water gardening, serves as the international registrar for waterlilies and lotus, and is editor of the *Water Garden Journal* of the International Waterlily Society. He will describe a cross-curricula project he recently completed, in collaboration with a teacher panel funded by the British government's Countryside Commission, on the grounds of Wentworth Castle, headquarters of a college of continuing education.

Dr. Gert Groening, of the University of Fine Arts in Berlin, Germany, will join Joachim Wolschke-Bulmah of Dumbarton Oaks in Washington, D.C., in a presentation on "Plants, Gardening, and Gardens in Children's Comics—An Educational Opportunity?" Groening and Wolschke-Bulmah believe that the tendency of adults to look down on comics has caused them to miss an opportunity to communicate with children too young to read text. They note that the number of gardening journals sold represents only about one-half of one percent of the comics sold. Their talk will analyze the way that plants and gardens are currently treated in comics for children.

Brian Holley, education director of the Teaching Garden at the Royal Botanical

Garden in Hamilton, Ontario, Canada, will speak on "Circles, Squares, or a Triceratops—Designing Practical, Age-Appropriate Gardening Programs." Holley wrote an article on his experiences at the Teaching Garden, "Wiggly Creatures and Amazing Mazes," for the April 1992 *American Horticulturist*.

"Designing a gardening program doesn't seem as though it should be too difficult until you have lived through a season with the garden and its gardeners," says Holley. "Two year-olds are frustrated by straight lines, seeds that fall through their fingers, printed labels, and plants that collapse under a conscientiously applied deluge of water. They do, however, love making a mess."

"Young teens seem comfortable with a mess only when it is in their bedroom. They want a beautiful garden filled with interesting plants, but getting them to interrupt the essentials of life—gossip and giggling—to weed or cultivate—can be a bit of struggle."

From our own far North, Janice Hanscom and Felicia Leipzig of Denali Elementary School in Fairbanks, Alaska, will come to speak on—what else?—"A Far North Garden Program." The garden they call "The Panther Patch" has a science/math focus. Indoor gardening projects are extended through summer in a joint school 4-H program. Our 50th state will also be represented. Colleen C. Lopez of the Hawaii Plant Conservation Center at the National Tropical Botanical Garden will describe her "Growing Seed" project, which uses the life cycle of the williwili plant to teach botany and conservation to children in grades 4 through 6.

## How to Register

There is still plenty of time to register for "Children, Plants, and Gardens: Educational Opportunities." Registration is \$100 for students, \$185 for nonstudents. For an additional \$25, participants can earn 1.8 continuing education units through George Washington University. Registrants can also join the American Horticultural Society for \$17.50, half of the usual new member price.

Using MasterCard or Visa, you can register by phone by calling (800) 777-7931 or by Fax, (703) 765-6032.

The primary lodging location, the National 4-H Conference Center, has been filled. Our overflow hotel is the Holiday Inn at 8120 Wisconsin Avenue, Bethesda, MD 20814. Vans will shuttle participants between the hotel and 4-H center. To reserve a room, call the hotel at (800) 638-5954.



# Gardeners' Q&A

**Q:** *I would like to grow the yaupon holly (Ilex vomitoria) in my Zone 7, Virginia garden. But I'm puzzled by conflicting reports on its hardiness. Dirr's Manual of Woody Landscape Plants says, for instance, that yaupon holly is native all the way up the coast to New York, but my local nurserymen have either never heard of it or claim that it can't be grown here. Are there yaupon cultivars that are reliable in my area?*

*L. B., Alexandria, Virginia*

**A:** Its small, dark, evergreen leaves, dense habit, and heavy yield of red berries make *I. vomitoria* one of our most handsome native hollies. A large number of cultivars are available, but most of these should not be grown farther north than USDA Zone 8. You are lucky, however, to have at least two that are suitable for Zone 7: 'Shadow's Female' and 'Nanyehi'. If you cannot find a local source for these, we suggest that you contact Holly Haven Hybrids, 136 Sanwood Road, Knoxville, TN 37923-5564. Holly Haven

maintains a collection of some 700 cultivars. Because of limitations on propagation, only a relatively small number of these will be available in any particular year. But one of Holly Haven's 1993 offerings is 'Nanyehi'.

Hollies are dioecious, which means that the two sexes never occur on the same plant. Both of the cultivars mentioned are female, so if you want berries, you will still have to obtain a male yaupon—or hope that someone else in your neighborhood has already gone to the trouble of doing so. Hal Elmore, the owner of Holly Haven, suggests that you take a drive to the southern Virginia coast. He says the coastal nurseries frequently carry male yaupons. 'Shillings Dwarf' (also called 'Stokes Dwarf') is a popular male cultivar, or you might even find the species.

Cold hardiness is not as important a factor with the male, since you are only after the pollen, and a little frostbite now and then won't prevent the males from producing it. But just to be on the safe side, you might want to buy a couple of them.

**Q:** *Where can I get more information on the International Horticultural Exposition that is taking place in Europe this summer?*

*J. C., Ann Arbor, Michigan*

**A:** Stuttgart, Germany, is the site of the 5th International Horticultural Exhibition. This major horticultural show opened April 30 and runs through October 3. The exhibit is on a site of over one million square meters with over 24 national festivals, 22 international gardens, and 23 international indoor flower shows, along with diverse cultural and recreational programs for adults and children. Gardens and classical parks are interspersed throughout the area with community allotment-type gardens, theme and national gardens, meadow gardens, and indoor exhibits. The overall theme is mitigating urban harshness and encouraging increased contact and sensitivity to nature through creative landscapes and gardening.

The exhibition premieres the completion of an urban design, in planning since 1939, that has linked Stuttgart's gardens, railway stations, and undeveloped outskirts into a continuous, U-shaped greenbelt four-and-a-half miles long. Although Stuttgart is one of Germany's most densely populated cities, this greenbelt has helped preserve its Old World beauty.

## For Garden Lovers With Disabilities

The Gardeners' Information Service now has available a new guide to U.S. public gardens that offer special features for people with physical disabilities. The guide lists public gardens with braille signs, wheelchair accessible pathways, raised bed wheelchair gardens, and sensory gardens for people with visual impairments.

The list of 70 public gardens is arranged by state. Entries include name, address, telephone number, and a listing of the garden's special features. The guide is available for \$4. If you would like to order a copy, please send a check payable to AHS with a note requesting "A Guide to Gardens for People With Physical and Visual Impairments" to: GIS, 7931 East Boulevard Drive, Alexandria, VA 22308-1300.

For more information on tickets and exhibit schedules, write to: Easy Ticket Service, 11 Siemensstrasse, 7000 Stuttgart 30, Germany.

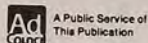
**Q:** *I have tried growing sunflowers this year, but cannot seem to get many seeds to germinate, and of the ones that do, the plants and flower heads are small and have little seed. What might be wrong?*

*M. M., New York City*

**A:** Rodents may have dug up the seed before it had a chance to germinate. Competition from weeds, or among the seedlings themselves, could have reduced the size of your seedlings. Thin them out and select only the strongest looking seedlings, and space those that remain to about 18 inches apart.

If your soil was too dry between flowering and seed head maturity, that could explain the small flower head size. Small heads may also be the result of planting seed too late in the season. Most sunflowers need approximately 100 to 110 days to mature. To get a jump on the season, start seeds indoors and transplant seedlings into the garden two weeks after the last frost date in your area.

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If you are growing hybrids and saving the seed, your plants may be small because the hybrid genotype will not reliably reproduce or because your plants are crossing with wild species.

Finally, poor pollination can decrease seed production. Heavy rain may be washing pollen from your flowers or you may not have enough pollinating insects in your garden. The latter would be an unusual situation, but it could occur if you are making heavy use of garden chemicals or if you live in a part of the city that is particularly crowded and polluted and has few blooming plants.

**Q:** When and how should I prune *Spiraea vanhouttei*? My shrub is beginning to look ragged.

S. F., Cleveland, Ohio

**A:** Pruning is important in keeping *Spiraea* attractive and healthy. Most species, including *S. vanhouttei* (bridal wreath), bloom in early spring on the past season's growth, so pruning should be done immediately after flowering in spring. Cut back and remove old flowering stems, any dead branches, and thin out crowded new shoots along the stems. Increasing light and air around the remaining shoots will improve overall strength, vitality, and shape. However, do not overprune—retain at least two-thirds of the plant. The objective is to keep the natural, balanced, and graceful shape of this reliable shrub.

A few species of spiraeas bloom in late summer. These should be pruned in winter or very early spring.

**Q:** I would like to try growing the monkey-puzzle tree. What kinds of growing conditions does this tree need to be grown outside?

A. G., St. Louis, Missouri

**A:** The monkey-puzzle tree, *Araucaria araucana*, is an evergreen native to Chile, but is the cold-hardest of all evergreens originating south of the equator. It is a very unusual, symmetrical tree with long spidery branches. The tree can reach over 150 feet in height under optimal growing conditions. It has an open spreading habit and grayish bark. It can be grown in full sun within USDA Zones 7 to 11.

Although it can withstand somewhat dry soils, it prefers deep, moderately fertile, well-drained, loamy, moist soils. It needs protection from drying winds, especially during the winter and when newly planted.

Sources for *A. araucana* include: Greer Gardens, 1280 Goodpasture Island Road, Eugene, OR 97401, (503) 686-8266 and Woodlander's, Inc., 1128 Colleton Avenue, Aiken, SC 29801, (803) 648-7522.

—Maureen Heffernan  
Education Coordinator



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## NEW RELEASES

### Beautiful Easy Gardens

*Laurence Sombke*

Softcover. Retail price: \$15.95. AHS price: \$13.50.

Book code: GLO 001

In this practical, easy-to-follow guide, experienced and would-be gardeners alike will find creative solutions for growing bountiful and beautiful gardens with a minimum of work. Laurence Sombke shares his expertise in an informal style that guides the reader through week-by-week activities for a complete, all-season gardening program. Designed for success, 10 low-maintenance, environmentally friendly designs offer a well-rounded approach to planning, planting, growing, harvesting, and enjoying your garden. 1993. 221 pages.

### Great Gardens From Everyday Plants

*Anne Halpin*

Softcover. Retail price: \$17. AHS price: \$14.50. Book code: SIM 002

*Great Gardens From Everyday Plants*, subtitled "How to Create a Beautiful Garden With Easy-to-Find Plants From Your Local Nursery or Garden Center," comes to the rescue of late-starting gardeners, those with little time, and those who need to "fill in" a not-quite-finished garden. Beautiful full-color illustrations of unusual garden designs and explicit text will both inspire and instruct those who use the local garden center as their primary plant source but who want to go beyond pots of geraniums and rows of marigolds. Guidelines on how to plan color schemes and designs, how to choose healthy plants, and how to plant and maintain gardens of all sizes are included. 1993. 160 pages.

### Wildflowers in Your Garden

*Viki Ferreniea*

Hardcover. Retail price: \$35. AHS price: \$29.90. Book code: RAM 003

Written and photographed by Viki Ferreniea, *Wildflowers in Your Garden* tells you everything you need to know to grow wildflowers in your yard. Ferreniea takes the reader through the steps necessary to create a successful habitat for native plants, whether it is one designed specifically for them or a traditional garden where the wildflowers will be mixed with other plants. She presents 10 stunning garden designs to suit a variety of habitats, including a bog garden. Also included also is a mini-encyclopedia of the best garden wildflowers and companion plants for your garden. 1993. 217 pages.

### Environmental Gardening

*Karen Arms*

Softcover. Retail price: \$23.95. AHS price: \$20.35.

Book code: HAL 005

*Environmental Gardening* provides information on trees, shrubs, vines, lawns, grasses, ground covers, perennials, annuals, and biennials plus details on herb, fruit, and vegetable gardening. Boxed features explain the scientific bases of environmental gardening. Margin notes include tips, fascinating facts, important information, even some delicious recipes. Printed on recycled paper. 1992. 320 pages.

### Bamboos

*Christine Recht and Max Wetterwald*

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

Book code: TIM 007

Bamboos are fascinating for their beauty, elegance, and variety of form. This book provides the necessary information to successfully plant and grow bamboo in the garden landscape. It includes chapters on garden design, bamboos in containers, and problems encountered in cultivation, along with appendices of practical information. 1993. 160 pages.

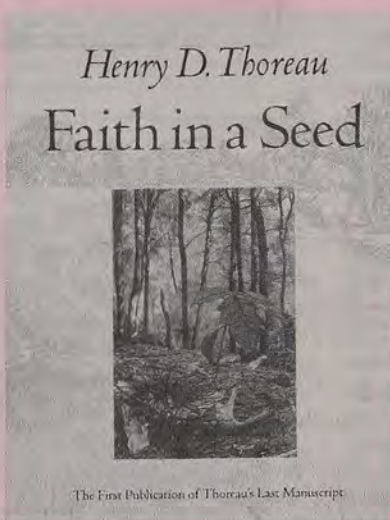
### Faith in a Seed

*Henry D. Thoreau*

Hardcover. Retail price: \$25. AHS price: \$21.25.

Book code: ISL 008

The publication of *Faith in a Seed* is a major literary event. It contains several of Thoreau's late natural history writings plus "The Dispersion of Seeds," his last important research and writing project, which until now has never been published. With the remarkable clarity and grace that characterizes all his works, "The Dispersion of Seeds" describes the ecological succession of plant species. *Faith in a Seed* is the crowning achievement of a life spent studying nature and nature's laws. 1993. 283 pages.



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*Caroline Boisset and Fayal Green*

Hardcover. Retail price: \$40. AHS price: \$34. Book code: CRO 010

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## OTHER TITLES

### Gardening With Perennials Month by Month

*Joseph Hudak*

Hardcover. Retail price: \$59.95. AHS price: \$50.95.

Book code: TIM 006

### Plant Marriages

*Jeff Cox*

Hardcover. Retail price: \$35. AHS price: \$29.75.

Book code: HAR 004

### Perennials and Their Garden Habitats

*Richard Hansen and Friederich Stahl*

Hardcover. Retail price: \$49.95. AHS price: \$42.50.

Book code: TIM 009

### The Evening Garden

*Peter Loewer*

Hardcover. Retail price: \$25. AHS price: \$21.25.

Book code: MAC 406

### The New Houseplant

*Elvin McDonald*

Hardcover. Retail price: \$40. AHS price: \$34.

Book code: MAC 407





# GARDENING BOOKS

## Daytime Phone: \_\_\_\_\_



# Gardeners' Dateline

## Mid-Atlantic

♦ July 10-11. The 13th Annual Lotus Blossom Festival. Lilypons Water Gardens, Buckeystown, Maryland. Information: (301) 874-5503.

♦ July 13. Virginia Blueberry, Blackberry Day. Blackstone, Virginia. Information: Herbert D. Stiles, (804) 292-5331.

♦ July 22. Native Ferns for the Garden. Tour. U.S. National Arboretum, Washington, D.C. Information: (202) 475-4857.

♦ July 31. The 11th Annual Water Lily and Conservation Festival. Kenilworth Aquatic Gardens, National Park Service, Washington, D.C. Information: (202) 426-6905.

♦ Aug. 26. Return of the Natives. Symposium. Irvine Natural Science Center, Stevenson, Maryland. Information: (410) 484-2413.

## North Central

♦ July 11-13. International Floriculture Industry Short Course. Cincinnati, Ohio. Information: Ohio Florists' Association, (614) 487-1117.

♦ July 17-Aug. 9. The 11th Annual Farm and Garden Tour Series. Plymouth, Ohio. Information: (419) 687-7665.

♦ July 29-Aug. 1. A Garden Walk. Tour. Cleveland, Ohio. Information: (216) 721-1600.

♦ Aug. 11-13. Ninth Annual Herb Symposium. Minnesota Landscape Arboretum, Chanhassen, Minnesota. Information: (612) 443-2460.

♦ Aug. 13-15. Association of Professional Landscape Designers Semiannual Conference. Chicago, Illinois. Information: Karen E. Amy, (201) 236-9001.

## Northeast

♦ July 3-4. Mid-Atlantic Lily Society

Annual Show. Longwood Gardens, Kennett Square, Pennsylvania. Information: Joy McKinney, (215) 399-1211.

♦ July 17. Garden and House Tour. Stockbridge, Massachusetts. Sponsored by the Lenox Garden Club. Information: (413) 298-3098.

♦ July 17-18. William Cullen Bryant: Interpreter of the American Landscape. Exhibit opening. Cummington, Massachusetts. Information: Marie Stella Byrnes, (413) 339-4278, Fax (413) 625-2158.

♦ July 20. Blue Hill Garden Tour. Blue Hill, Maine. Information: Juanita Blumberg, P.O. Box 195430, Winter Springs, FL 32719-5430.

♦ July 23-25. Cold Climate Gardening Workshop. Burlington, Vermont. Information: (802) 863-1308.

♦ July 28. Flower Show and Tea.

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## River Farm Art

The oil paintings and watercolors of Sharon Hinckley will continue on display at AHS throughout the month of July until August 4. Appearing with Hinckley's work will be that of English-born artist Andrea Gaye. From August 4 to September 7, the work of local artists Deborah Broad and Jamie Brooks will be exhibited at River Farm. For further information call (703) 768-5700 or (800) 777-7931.

Whitefield, New Hampshire. Sponsored by the White Mountain Garden Club. Information: (603) 823-8815.

♦ July 28. **How to Prune Hedges and Topiary.** Demonstration. Longwood Gardens, Kennett Square, Pennsylvania. (215) 388-6741.

♦ July 29-Aug. 1. **International Water Lily Society Ninth Symposium.** Rye Brook, New York. Information: Hildreth K. Morton, (410) 798-0231, Fax (410) 798-5314.

♦ Aug. 7. **Gardenfest!** Rodale Research Center, Kutztown, Pennsylvania. Information: (215) 683-6383.

♦ Aug. 7. **Summer Garden Day.** Old Sturbridge Village, Sturbridge, Massachusetts. Information: (508) 347-3362.

♦ Aug. 13-15. **Celebration of Rural Life.** Annual Summer Conference of the Natural Organic Farmers Association. Hampshire College, Amherst, Massachusetts. Information: Julie Rawson, (508) 355-2853.

## Northwest

♦ July 8-11. **Herbs '93.** International Herb Growers and Marketers Association Eighth Annual Conference. Bellevue, Washington. Information: (708) 949-4372.

♦ Aug. 1-4. **American Horticultural Therapy Association Annual Conference.** Seattle, Washington. Information: David Stockdale, (206) 543-8616.

## South Central

♦ July 25. **Iris Show.** Botanica, The Wichita Gardens, Wichita, Kansas. Information: (316) 264-0448.

♦ Aug. 11-16. **International Master Gardener Conference.** San Antonio,

Texas. Information: Calvin Finch, (512) 228-0417.

♦ Sept. 3-5. **Fourth Annual Cryptanthus Show and Sale.** Tulsa Garden Center, Tulsa, Oklahoma. Information: (918) 835-6080 or (918) 733-4602.

## Southeast

♦ July 10-11. **Japanese Festival and Bonsai Show.** Atlanta Botanical Garden, Atlanta, Georgia. Information: Carol Flammer, (404) 876-5859.

♦ July 24-29. **American Society for Horticultural Science Annual Meeting.** Nashville, Tennessee. Information: Christine A. Radiske, (703) 836-4606.

♦ Aug. 21. **Twilight Zone.** Evening garden tour. Callaway Gardens, Pine Mountain, Georgia. Information: Kathy Tilley, (706) 663-5060.

♦ Aug. 28. **Herb Festival.** Durham, North Carolina. Information: Edna Lovelace Gaston, (919) 477-5498.

## Southwest

♦ Aug. 21-22. **Mushroom Fair.** Denver Botanic Gardens, Denver,

Colorado. Information: Marilyn Shaw, (303) 377-1278.

## West Coast

♦ July 3. **Midsummer's Night Gleam.** Full moon garden tour. Foster Botanical Garden, Honolulu, Hawaii. Information: (808) 537-1708.


♦ July 3-4. **Cactus and Succulent Show and Sale.** Los Angeles State and County Arboretum, Arcadia, California. Information: (818) 821-3222.

♦ July 3-Sept. 19. **Gertrude Jekyll: Private Gardens, Vanishing Arts.** Photo exhibit. University Art Museum, University of California, Berkeley, California.

♦ July 17-Aug. 7. **Totally Topiary.** Pier 39, San Francisco, California. Information: Alicia Vargas, (415) 705-5500.

♦ Aug. 19. **Plant Hunters.** Field trip. Santa Barbara Botanic Garden, Santa Barbara, California. Information: Anne Steiner, (805) 682-4726.

♦ Sept. 4-6. **Fern and Exotic Plant Show.** Los Angeles State and County Arboretum, Los Angeles, California. Information: George Keyes, (818) 441-3148.



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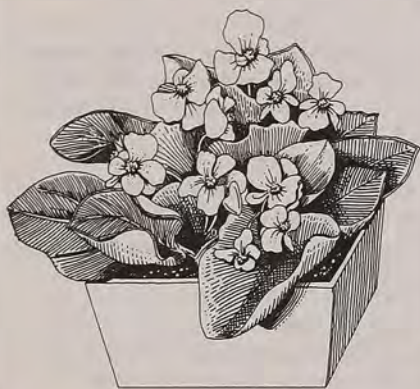
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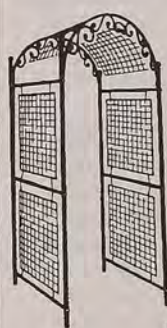
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## A Call to Change Our Weeding Ways

Americans are asking for trouble if they don't change their herbicide habits, according to an agronomist at the University of Wisconsin. More and more weeds are becoming resistant to major herbicides, says Gordon Harvey. To slow the process, we need to vary our weed control strategies.

Resistance is seriously reducing the effectiveness of the triazine herbicides. Widely used in agriculture and in the production of turf grass, triazines are one of the most important herbicide groups. When they were introduced, about 35 years ago, the possibility of natural resistance in a weed was perhaps one in a trillion, says Harvey. Today, about 60 species of triazine-resistant weeds are known worldwide.

Newer classes of herbicides, like the sulfonylureas and the imidazolinones, have triggered resistance in just four years. Harvey says the speed of this response may be due to the herbicides' very limited mode of action: both classes attack just a single plant enzyme. Such a limited toxicity is desirable from an environmental point of view because the danger to nontarget organisms is likely to be slight. By contrast, some older herbicides, like 2,4-D, are broadly disruptive to plant metabolism and have caused little or no resistance. A common agricultural chemical, 2,4-D is also frequently used by lawn care companies.

But some older herbicides may soon come off the market because of environmental risks, and fewer new ones are being developed. Harvey argues that we cannot afford to let resistance erode the effectiveness of the remaining chemicals. As the "worst case scenario," he cites the predicament Australian wheat growers now face. "A rye grass has emerged there that is resistant to every herbicide available for wheat." Farmers have to fight the rye grass with repeated

bouts of tilling.

Harvey argues that the solution is to vary control tactics. "If we stay with any one strategy for too long, the weeds will get wise." Even the most direct strategy—weeding—can be defeated. Harvey says, for example, that pulling barnyard grass out of rice used to be a simple if tedious task because of the weed's conspicuous red stem. But all that weeding eventually selected for a green-stemmed barnyard grass. "The key is not having the same selection pressure operating for too long a time." Growers should practice crop rotation, herbicide rotation, and some additional cultivation, says Harvey. "We need to act now before we get into really hot water."

## A Dating Service for Lonely Gardeners

Tired of hoeing alone? But can't seem to find anyone who shares your passion for compost? The Single Soilmates Dating Service, a correspondence network for single gardeners ages 19 and up, stands ready to help. Soilmates was founded last March by two sisters, Gracia Roemer and Faith Wong, as an alternative to traditional dating services. "We were interested in finding some way to connect people in a wholesome and spiritual type of way," says Wong. Before founding Soilmates, Roemer had belonged to five dating services, where she found this possibility lacking.

A six-month membership currently costs four dollars. Members receive the quarterly *Soilmates* newsletter, which includes a recipe exchange, gardening tips, advice on organizing seed catalog parties, and other forms of garden writing. Members will also be able to include profiles of themselves in the newsletter. For a fee of \$1 per letter, they can correspond with other members whose profiles appear. A system of code numbers, used instead of addresses,

assures members' privacy. By mid-May, Wong said the membership was about 13.

In a press release announcing the opening of Soilmates, Roemer and Wong suggest that members trade videos of themselves gardening. "Unlike more traditional singles' videos, these capture the inner essence of prospective planting partners at work at the nature-loving activities about which they are passionate." The sisters say it's not necessary to be a gardener to join: "Perhaps a written description or drawing of one's fantasy garden could be shared."

A portion of the profits will be contributed to projects focusing on "the promotion of social well-being through people-plant interactions," like urban gardening and horticultural therapy programs.

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For more information, write: *Soilmates*, P.O. Box 4065, Ogden, UT 84402.

## Colorful Veggies

If you're tired of vegetables that are always the same predictable colors, you'll be glad to hear that plant breeders are whipping up maroon carrots and peppers with variegated foliage.

While visiting Brazil, Texas A&M vegetable breeder Dr. Leonard Pike found three carrots with maroon skin, and concluded that they would be a big hit with the Aggies, whose school colors are maroon and white. Although some purple coloration on carrots is not rare, Pike believes that within two years he will have bred one that is maroon to the core. He adds that his carrots have a texture that is crispy like celery.

Breeders at the Agricultural Research Service of the U.S. Department of Agriculture in Beltsville, Maryland, are introducing new ornamental peppers whose foliage is purple, green, and white, with fruits that are blood red. The fruit is described as "edible, but very pungent."



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