News Edition November 1985

# American Horticulturist

# **Endangered Plant Update**

he U. S. Fish and Wildlife
Service has added a number
of plants to the list of Endangered and Threatened Species in recent months and several other species have been proposed for listing.
The following list is a summary of
these actions. In most cases, Critical
Habitat was not designated for these
species, because publication of the
precise location of remaining populations would make them vulnerable to
collection and vandalism.

Listed as Endangered

Amsinckia grandiflora. Large-flowered fiddleneck is an annual that bears fiddleneck is an annual that bears fiddleneck is an annual that bears fiddlenead-shaped inflorescences of bright red-orange flowers. Populations of this species have declined drastically in recent years; today, it is known only from a single half-acre site near Livermore, California. Less than 50 plants remain, and these are threatened by competition from more aggressive species. For more on A. grandiflora, see the November 1984 American Horticulturist News Edition.

Astragalus humillimus. Mancos milk vetch is a perennial member of the pea family that bears small, lavender and white flowers that have a sweet, pungent aroma. The plants form low, tufted mats that are from 12 to 18 inches in diameter. Approximately 7,000 plants remain, all of which are located in four populations in New Mexico. The largest population (approximately 5,000 plants) is located on an active oil field on the Navajo Indian reservation. The species does not tolerate disturbance.



Only 35 specimens of Mauna Kea silversword, Argyroxiphium sandwicense var. sandwicense, are known to exist.

Dicerandra immaculata. Lakela's mint is found on a few sites in Indian River and St. Lucie Counties, Florida, where it grows among pine scrub vegetation and along former ocean shorelines in highly drained, sterile soil. The species is threatened by sand mining and commercial and residential development. For more information on this species, see the November 1984 American Horticulturist News Edition.

Gouania billebrandii. This native Hawaiian species is found only on the island of Maui, and is one of the few remaining Hawaiian species in its genus. The plants reach six feet in height, and the slender branches are covered with a rust- or ash-colored fuzz. The flowers are small, fragrant and nearly white. This species is primarily threatened by grazing of feral livestock. For more information, see the January 1984 American Horticulturist News Edition.

Goetzea elegans. Beautiful goetzea is a rare evergreen shrub found only in northern Puerto Rico. Fewer than 50 plants remain, and these are threatened by road construction, trimming of roadside vegetation and potential limestone mining. Only one of the remaining plants is known to have produced flowers and fruit since 1936.

Kokia drynarioides. Hawaii tree cotton is a small tree that grows to about 25 feet in height, and bears large red flowers. Only about 15 plants of this species remain. K. drynarioides, which is found only on the island of Hawaii, is threatened by

Continued on page 2

# **Endangered Plant Update**

Continued from page 1 livestock grazing, rodents that destroy the seeds, fire and competition from introduced plants. For more information, see the January 1984 American Horticulturist News Edition.

Pityopsis ruthii. Ruth's golden aster is a perennial species that bears yellow flowers in August and September. It grows along the Ocoee and Hiwassee Rivers in Polk County, Tennessee, and only two populations of the species are known to exist. The remaining plants are threatened by water quality degradation, toxic chemical spills and water flow regime alterations.

#### Listed as Threatened

Camissonia benitensis. San Benito evening-primrose is a small, hairy annual with bright yellow flowers. For more on this species, see the March 1984 American Horticulturist News Edition.

Carex specuicola. This perennial sedge is known only from the areas around three seeping springs on the Navajo Indian Reservation in Coconino County, Arizona. Fewer than 700 plants remain, and these are threatened by water development and livestock grazing or trampling.

Erigeron rhizomatus. This perennial member of the daisy family, commonly called rhizome fleabane, is a clump-forming plant restricted to 20 small populations in the Datil and Sawtooth Mountains in northern New



Prickly-apple cactus, Cereus eriophorus var. fragrans

Mexico. Because of its limited distribution, the species is threatened by habitat disturbance. Most of the remaining 200 plants are located close to inactive uranium claims.

Ribes echinellum. Miccosukee gooseberry is known from only two locations, one on the shore of Lake Miccosukee, Florida, and the other in McCormick County, South Carolina. This species reaches about three feet in height, and bears greenish-white flowers followed by spiny, round fruits. The plants in both populations are threatened by recreational activities, and the Florida population could be threatened by development. (The Florida plants are somewhat protected by state law, which prohibits collection and sale of endangered plants but does not protect their habitat. South Carolina does not have any state laws to protect threatened and endangered plants.)

Solidago spithamaea. Blue Ridge goldenrod is found only on high mountain peaks in North Carolina and Tennessee. It is currently known from only three populations. For more information, see the November 1984 American Horticulturist News Edition.

Five species native to Florida's pine rockland region in Dade and Monroe Counties were added to the list of Endangered and Threatened Species. According to the Endangered Species Technical Bulletin, "Formerly, pine rockland plants were widely distributed along the south

Florida limestone ridge, an area about 65 miles long extending from southeastern Broward County to Long Pine Key in Everglades National Park. The ridge reaches 3 to 5 meters in elevation and provides a markedly different habitat for plants and animals than the marshes and wet prairies that dominate the surrounding areas. The substrate consists of porous limestone, known as Miami oolite, covered by poorly developed soils that are mainly a thin layer of sand. Erosion of the limestone results in frequent holes and jagged surface features, and many plants thriving in these pine rocklands are rooted in crevices in the limestone." All of the species are severely threatened by residential and commercial development. The following four species, which have already disappeared from most of their former ranges, were listed as Endangered: Euphorbia deltoidea subsp. deltoidea, a spurge family member with a prostrate habit, thin wiry stems and unisexual flowers; Galactia smallii (Small's milkpea), a small vine with compound leaves and pinkish flowers; Polygala smallii (tiny polygala), an erect biennial with clusters of branched or unbranched stems that terminate with clusters of small, yellow-green flowers; and Amorpha crenulata (crenulate lead-plant), a compound-leaved shrub with small, single-petaled flowers. Euphorbia garberi, Garber's spurge, was listed as Threatened. It is a prostrate herb with ovate leaves and inconspicuous flowers.

Seven species found in Ash Meadows, a valley northwest of Las Vegas, Nevada, were also listed. According to the Endangered Species Technical Bulletin, Ash Meadows "is a unique and diverse wetland ecosystem within one of the most arid regions of the world." Since the time these species were proposed for listing (see the March 1984 American Horticulturist News Edition for more information), The Nature Conservancy has purchased the Ash Meadows site, and it has been established as Ash Meadows National Wildlife Refuge. For this reason, six of the species were listed as Threatened rather than Endangered. The six species listed as Threatened are Ivesia eremica, Ash Meadow ivesia; Enceliopsis nudicaulis var. corrugata, Ash Meadows sun-

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ray; Centaurium namophilum, spring-loving centaury; Mentzeila leucophylla, Ash Meadows blazing star; Astragalus phoenix, Ash Meadows milk-vetch; and Grindelia fraxinopratensis, Ash Meadows gumplant. The seventh species, Nitrophila mohavensis (commonly called Amargosa niterwort) was listed as Endangered because none of its range is included in the Ash Meadows National Wildlife Refuge.

Proposed as Endangered

Abutilon menziesii. This small Hawaiian shrub was formerly found on the islands of Hawaii, Maui and Lanai. The populations of this species have been decimated by grazing, erosion and conversion of habitat to cropland. Today, it is known only from two populations on Mauai and one on Lanai.

Achyranthes rotundata. This shrub, which reaches a height of about 6½ feet, is native to the Hawaiian islands. Like many Hawaiian native plants, its numbers have been reduced drastically because of habitat loss and competition with exotic species. Although A. rotundata bears inconspicuous flowers, its inflorescences and leaves are used in making traditional leis.

Argyroxiphium sandwicense var. sandwicense. Mauna Kea silversword is found on the upper slopes of Mauna Kea, the highest volcano on the island of Hawaii. Only about 35 individuals of this variety are known to exist, despite the fact that it was abundant as recently as 50 years ago. Feral livestock, which trample the plants, cause erosion, and also help disperse exotic species of plants, are a major threat to the survival of this plant.

Cereus eriophorus var. fragrans. The fragrant prickly-apple is a columnar cactus native to Florida. Only about 200 individuals are known to exist. The species is threatened by urban development, off-road vehicles and collecting by private and commercial cacti collectors.

Cordylanthus palmatus. Commonly called palmate-bracted bird's-beak, this central California native is an annual herb in the snapdragon family. Like other members of the genus, *C. palmatus* is hemiparasitic (a parasite that can exist as a saprophyte) on the roots of various seed plants. Little is known about the spe-

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Lanai sandalwood. Santalum freycinetianum var. lanaiensis

cies' ecology; its range has been reduced by conversion of land for agricultural use and by residential development. Only three populations remain, the largest of which is near Livermore in Alameda County.

Cycladenia humilis var. jonesii. Jones' cycladenia is known from only three populations located in southeastern Utah, which include a total of about 5,000 to 6,000 plants. The species, which has bright green leaves and rosy flowers, is featured in the 1986 Endangered Wildflowers Calendar.

Dicerandra frutescens and D. cornutissima. Commonly called scrub balm and longspurred balm, respectively, these two mint-family members are native to central Florida. Both species have probably always been rare, but they are now threatened by commercial and residential development. Both have very aromatic foliage and attractive flowers; D. frutescens bears pairs of tubular, white or pale pink flowers with purplish-rose dots, while D. cornutissima bears groups of rose-purple flowers that have deep purple markings.

Erythronium propullans. Minnesota trout lily, which is found only in the state of Minnesota, is a lily-like plant that reaches six inches in height and bears a single, small nodding flower that is bell-shaped. The species blooms in April or May, and both the leaves and the flowers disappear by early June. Only a few hundred individuals remain, and these are distributed in about 14 sites in Rice and Goodhue counties.

All of the remaining plants, which are located on private land, are threatened by habitat loss due to construction and urban development.

Hibiscadelphus distans. This rare tree is known only from a single population in Waimea Canyon on the island of Kauai in Hawaii. It bears heart-shaped leaves and small, greenish-yellow flowers that turn dark with age. The genus is closely related to Hibiscus; the flowers resemble unopened hibiscus blossoms. Although the species was at one time more abundant, today only 10 trees are known. The species, which is featured in the 1986 Endangered Wildflowers Calendar, is threatened by feral goats and erosion.

Hoffmanseggia tenella. Slender rush-pea is a bean family member that bears three- to five-flowered clusters of orange flowers from March to June. Today, the plant is known from only one small population-consisting of only three plants—in the Blackland Prairie Area of the Gulf Coastal Prairie in Texas. The most serious threat to this species is habitat alteration. Competition from non-native grasses is also a

Hymenoxys texana. Botanists know of only three populations of this rare annual aster. The species reaches a height of about four inches, and bears its small yellowish flower heads in late March through early April. All of the remaining plants are located near Houston, Texas; two of the populations are on private property near a housing development, and the other is located on public

land adjacent to a county road.

Oxypolis canbyi. Canby's dropwort is a perennial found in a few locations in Maryland, Georgia and North and South Carolina. It grows in swamps, shallow pineland ponds and wet pine savannahs, where it spreads vigorously by means of fleshy rhizomes. The small flowers are white and green, and are sometimes tinged with red. The most severe threat to this species is the loss of habitat due to wetlands drainage.

Santalum freycinetianum var. lanaiensis. Commonly called Lanai sandalwood, this species is a small gnarled tree that bears bright red flowers in small clusters. Only about 39 individuals remain, and these are threatened by browsing game ani-



## The American Horticultural Society



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Kenya and East Africa

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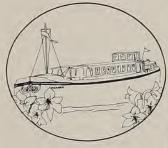
Led by Dr. Gilbert Daniels, past president of the AHS, this trip to one of the world's most evocative countries includes visits to private gardens, arboreta, great tea estates, lakes, mountains, rain forests and moorlands througout Kenya. The country offers an incredible spectrum of botanical wonders. Areas of great scenic beauty also provide ample opportunity to view the vast array of East Africa's extraordinary wildlife.



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Dutch Treat, Holland at Tulip Time

April 27-May 11, 1986

This year's trip is a variation on last year's highly acclaimed tour following paths to the country's thriving horticultural centers. We spend the first week in Amsterdam visiting the gardens of Mien Ruys, the Palais Het Loo, Haarlem and more. The second week we cruise Holland's canals aboard the luxurious hotel barge 'Juliana.' Our tour leader will be Mary Mattison van Schaik. Mrs. van Schaik, now a Vermonter, lived in Holland for 18 years and has owned a bulb importing business for 30 years. A member of the AHS, she is a popular lecturer and has been a Regional Director of the American Daffodil Society.



Scotland, Unspoiled and Unknown

May 25-June 8, 1986

Scotland is unquestionably romantic in legend and history and the landscape beautiful and unspoiled. We will visit private homes and gardens in the Western Highlands of Argyll, renowned for its rhododendrons and flowering shrubs. Traveling through remote and breathtaking scenery, we will tour the Isle of Gigha, Crarae Woodland Gardens, Inverewe and Inverness. We will be entertained in private homes and castle gardens. In Edinburgh we have the opportunity to explore the city at our own pace and to be entertained by some of Scotland's most enthusiastic and privileged horticulturists. We are again fortunate to have Everitt Miller, former director of Longwood Gardens, as our leader.

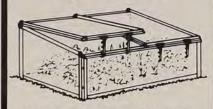
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Scaevola coriacea. This sparsely

branched, prostrate shrub was once known from all of the major Hawaiian islands. Currently, only four small populations of the plant are known, and there are only about 350 plants remaining on their natural habitat. Found only near the ocean on low sand dunes, a single plant of

# Wildflower Rediscovery Awards Presented

he American Horticultural Society presented Wildflower Rediscovery Awards to five individuals who have rediscovered populations of species that were thought to be extinct, or have found new populations of extremely rare species.

Amsinckia carinata, a small annual herb in the borage family, Boraginaceae, was rediscovered in Malheur County, Oregon, by Elaine Joval. This rare species had not been seen since its original discovery by John Leiberg in 1896. Joyal, who rediscovered A. carinata in June 1984, used information from the label on a herbarium specimen to identify the pages of Leiberg's field notes that referred to his discovery. Once she obtained copies of the appropriate pages from his journals and field notebooks, which are housed in the Smithsonian Institution archives, Joval had the clues she needed to search for A. carinata. Joyal discovered several populations of the species, which seems to occupy a unique ecological niche; it grows in rocky soil and is intolerant of disturbance. The species is threatened by grazing, agriculture and general surface disturbance.

Reid Schuller, a plant ecologist with the Washington Natural Heritage Program in Olympia, Washington, located *Arenaria franklinii* var. *thompsonii* in Adams County, Washington. The species, commonly known as Thompson's sandwort, was previously known only from populations in Oregon along the Columbia river. All of the Oregon populations were presumed extinct, because nearly all of the species' habitat had been flooded behind dams. Thompson's sandwort had not been seen since

1955 and had never been recorded in Washington. Schuller discovered a large population growing in stabilized sand dunes.

Haplopappus insecticruris was rediscovered by Steve Caicco of the Idaho Natural Heritage Program. The species, which is found only in the state of Idaho, had not been seen since the 1940's, despite several intensive searches in the last 10 years. Following Caicco's discovery in 1984, the Idaho Natural Heritage Program hired Vince Lee to make another thorough search for the species. Lee discovered 82 populations located in three Idaho counties. Botanists have now determined that H. insecticruris is much more common than they previously had thought, and the species is no longer considered endangered or threatened.

Jackie Poole of the Texas Natural Heritage Program, Austin, Texas, discovered a large population of *Hoff-mannseggia tenella* (approximately 10,000 plants) in a cemetery in Kelberg County, Texas. The species, commonly called slender rush-pea, was previously known from only four plants located at a single site. The discovery of this important new population is very significant, because it indicates that the species is not as endangered as experts had previously thought.

All of the recipients received certificates and rewards from the American Horticultural Society's Wildflower Rediscovery Project, which is funded through sales of the 1986 Endangered Wildflowers Calendar. For more information on the calendar or the Wildflower Rediscovery Project, please write to Assistants-to-the-Editor in care of the Society.

S. coriacea can sprawl over an area of up to 108 square feet. The remaining plants are on Mauai and two nearby islets.

Tumamoca macdougalii. Tumamoc globe-berry is a desert vine found only in Pima County, Arizona and Sonora, Mexico. It is a member of the gourd family, and the only species in its genus. A perennial, it has tuberous roots and produces small, round fruits that look like tiny watermelons when young and turn red when they ripen.

Zantboxylum thomasianum. Prickly-ash is a rare evergreen shrub native to the Caribbean, where it is found on limestone and areas of volcanic origin in northern and central Puerto Rico as well as southern St. Thomas and St. John. Only about 1,050 specimens of the species are known to exist, and 1,000 of these occur in a single locality. All are threatened by potential habitat destruction from limestone mining, urbanization and road maintenance.

Proposed as Threatened

Coryphantha robbinsorum. Cochise pincushion cactus is a small, unbranched cactus that bears pale yellow-green flowers that have a slight bronze cast. Discovered in 1976, the species is known only from a population in southwestern Arizona and one in Sonora, Mexico. Although grazing practices and oil exploration are possible threats to this species, collecting by private or commercial cacti enthusiasts is probably the most serious threat to the species' survival.

The Fish and Wildlife Service withdrew proposals to list two plants, Hedeoma diffusum (Flagstaff pennyroyal) and Phlox pilosa var. longipilosa (long-haired phlox). New data indicate both plants are more abundant and the threats they face are not as serious as previously thought. For more information on H. diffusum see the November 1983 American Horticulturist News Edition; for more on P. pilosa var. longipilosa see the January 1984 edition.

Members interested in obtaining more information on these plants may write to Associate Editor, American Horticultural Society, P.O. Box 0105, Mount Vernon, VA 22121. Please send \$2.00 to cover postage and handling.

> —Endangered Species Technical Bulletin

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# 1985 Summer Intern Profiles: Brian Little and Karl Stromayer

orticulture entered Brian Little's life when his father accidentally backed the family car into a neighbor's crape myrtle. "We walked into Mr. Forster's house to explain what had happened, and I was just overwhelmed by all the house plants," Brian said. It turned out Mr. Forster, whom Brian came to call Grandpa, wanted to get rid of the crape myrtle anyway, and Mr. Little's car had done him a favor. "We were good neighbors after that," Brian recalled, and Mr. Forster began to teach seven-vear-old Brian all about outdoor gardening, while his wife gave Brian lessons in caring for house plants. Brian learned to propagate African violets when he was eight years old, working with Mrs. Forster's hundreds of windowsillgrown plants.

Brian, one of four 1985 American Horticultural Society Summer Interns, will receive a B.S. in Agriculture from Virginia's Ferrum College in 1986. He chose to major in agriculture, with a strong emphasis in horticulture, because he felt it would give him a diversified background from which he could specialize later. "My heart is really in horticulture," savs Brian, who has had previous summer jobs as a file clerk, payroll clerk and telephone salesman. Although he thinks the business knowledge he has gained from these jobs will be valuable, Brian was delighted to be an AHS Intern. "It was more important for me educationally to have a horticultural experience than to have another office job, even though the office job would have paid more.'

Of all the tasks he has performed this summer at River Farm, Brian has most enjoyed his work with the perennial borders. "I've been watching the color patterns, different height and leaf structures, and blooming sequence. I've learned a lot about coordinating different plant species."

Brian also enjoyed completing the Master Gardener's Program, which became part of the Summer Internship curriculum this year. He hopes



1985 American Horticultural Society Interns Karl Stromayer and Brian Little.

to complete some of the Program's required 50 hours of volunteer work by helping out in the Washington, D.C. extension office over his Christmas vacation.

A talented singer, Brian spent his free time this summer singing at weddings and church services, as well as taking on some landscaping and lawn care jobs in his Washington neighborhood. His end-of-summer vacation to Nag's Head, North Carolina, was certainly well-deserved!

For Intern Karl Stromayer, a love of plants also began in early childhood. "My father started me in gardening when I was about three. I'm sure I wasn't very helpful, but I remember the incredible excitement I felt when Dad had so many cherry tomatoes that he told me I could

take whatever I wanted!" By the time Karl was 14, his father decided Karl merited a 10 by 10-foot garden of his own. "The first year I planted peanuts, horseradish and okra, just because I was intrigued by them and wanted to see how they grew."

From such auspicious beginnings, Karl went on to major in biology at George Washington University in Washington, D.C. He will complete his degree in December. For him, the AHS Summer Internship was an essential part of his education.

"I like the internship a lot because it exposes me to more aspects of botany than I've studied before. I have really enjoyed working on the Seed Program and with the All-America Selections." Because of his strong interest in ecology, however, Karl



Steve Davis (center) the Society's Director of Grounds and Buildings works with four AHS Summer Interns. They are, from left to right: Sue Ellett, Brian Little, Steve Davis, Lynn Hightower and Karl Stromayer.

liked working with the wildflower meadow best of all. He started a study of the different insect species in the meadow and their densities, which he hopes to continue this fall. "Even chopping down the products of secondary succession-all the mulberry, black locust and pokeweed seedlings-wasn't lost on me. The meadow is a very interesting project because you don't really know where it's going, and because it's so worthwhile ecologically.

Karl considered majoring in natural resources management, but decided it was too specialized a field for him. "Biology asks the kind of definitive questions I like to go for," he says. Although Karl was interested in ecology at an early age, a college field studies trip to Kenya focused his educational direction even more clearly. "In Africa, I saw how dependent people were on the environment. There's no safety margin if a crop fails there. I felt I should study ecology after I saw that first-hand.

The AHS internship was the most scientific of the biology-related jobs Karl has held, and has given him a new appreciation for horticulture, as well as a good deal more practical experience with plants. Karl hopes to carry his horticultural experience into his future, whether the next step for him is graduate school or the working world.

Sue Ellett, a forestry major at Virginia Polytechnic Institute and State University (VPI), and Lynn High-

tower, a landscape design major also at VPI rounded out the 1985 Summer Intern crew.

Donations from Society members make the Internship Program possible. The 1985 Summer Interns and the permanent staff at AHS heartily thank those donors for another year of Internships.

College students who are majoring in a plant-related science are welcome to apply for 1986 Summer Internships. For more information, write to Steve Davis, Director of Grounds and Buildings, AHS, P.O. Box 0105, Mount Vernon, VA 22121. There are also internships available for recent college graduates; for information on these graduate internships, which are sponsored by the H. J. Heinz Foundation and the Alcoa Foundation, write to Ray Rogers, Education Supervisor, at the Society.

-Connie Clark

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Caribbean Garden Symposium (January 19-29) Cruise the unspoiled Grenadine Islands and Venezuela's exotic Orinoco River. Explore the spice island of Grenada, the tropical forests of Martinique, the lovely botanic gardens of Tobago, and public and private gardens on Barbados. Tour fascinating gardens and natural areas in the Caribbean with tour leader Everitt Miller, former Director of Longwood Gardens.

Gardens of Costa Rica (February 16-March 1) Visit private and public gardens, and tour commercial nurseries and natural areas in a horticultural paradise. See mature collections of orchids, aroids and bromeliads at Lankester Garden, and stay at an Organization for Tropical Studies field station near the Panamanian border. Tour Leader: Mildred L. Mathias, Emeritus Professor of Botany, UCLA.

Holland at Tulip Time (April 27-May 11) Admire spectacular Dutch flowers and learn about Holland's thriving horticultural centers. Spend a week in Amsterdam visiting the gardens of Mien Ruys, Palais Het Loo and Haarlem. The second week of this fascinating tour is spent aboard the luxurious hotel barge Juliana cruising the canals. Tour leader: Mary Mattison van Schaik, a bulb importer from Vermont, who also lived in Holland for 18 years.

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MAIL TO: Robin Williams, American Horticultural Society, PO Box 0105, Mount Vernon, VA 22121.

# Gardener's Dateline

#### **NOVEMBER 4**

Symposium: "Transatlantic Gardens of Yesterday and Today"

U. S. National Arboretum, Washington, D.C. Information: The Tradescant Gardeners of America, PO Box 316, Charlottesville, VA 22902.

#### **NOVEMBER 6-7** Seminar, "Trees, People, and the Law'

Columbus, Ohio. Information: Alan D. Cook, Executive Director, Ohio Chapter, International Society of Arboriculture, The Dawes Arboretum, 7770 Jacksontown Road, SE, Newark, OH 43055, (614) 323-2990, 2355 or 4422.

#### **NOVEMBER 17-21**

#### Third International Drip/Trickle **Irrigation Congress**

Fresno, California. Information: American Society of Agricultural Engineers, 2950 Niles Road, St. Joseph, MI 49085, (616) 429-0300.

#### NOVEMBER 26-30

#### International Conference on Botanic Gardens and the World Conservation Strategy

The World Wildlife Fund (WWF), Las Palmas de Gran Canaria. Information: Dr. D. Bramwell, Jardin Botanico "Viera y Clavijo," PO Box 14 de Tafira Alta, 35017 Las Palmas de Gran Canaria, Canary Islands, Spain.



#### JANUARY 26-30

**Associated Landscape Contractors of** America Convention.

Tampa, Florida. Information: ALCA, 405 N. Washington Street, Falls Church, VA 22046, (703) 241-4004.

#### **JANUARY 30-FEBRUARY 1** Southwest Urban Forestry Conference

Walnut, California. Information: Gary A. Moll, American Forestry Association, 1319 18th Street, NW, Washington, DC 20036, (202) 467-5810.

#### FEBRUARY 18-19 Interstate Ornamental Plant **Management Conference**

College Park, Maryland. Information: Conference Assistant, Department of Entomology, University of Maryland, College Park, MD 20742.

## Upcoming **AHS Events**

The following Society-sponsored events have been scheduled. Unless otherwise noted, all events will take place at the Society's headquarters, River Farm, which is located at 7931 East Boulevard Drive in Alexandria, Virginia. For more information on any of these events, please write or call the Education Department, American Horticultural Society, P.O. Box 0105, Mount Vernon, VA 22121, (703) 768-5700.

#### December 7 Christmas Open House

Pre-order plant and greens sale: Hours: 10 a.m. to 4 p.m. Admission free.

#### March 15-16, 1986 Wildflower Symposium

Admission and program to be determined.

## May 11, 1986

## **Spring Open House**

Hours: 11 a.m. to 4 p.m. Admission: AHS members \$2, non-members \$3.

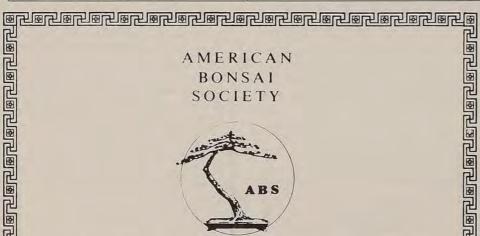
#### August 13-18, 1986 **AHS Annual Meeting**

San Francisco, California

#### May 13-17, 1987 **AHS Annual Meeting**

New York, New York

The River Farm grounds will also be open on a Saturday in early to mid-April for Daffodil Day, and again in June for Davlily/Lily Dav. Specific dates to be determined.



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## **Plants Wanted**

Members who are growing or who have access to any of the plants in this month's column are invited to help their fellow members locate seed, plants or cuttings of their "Plants Wanted" by writing directly to the addresses listed below.

Please send your "Plants Wanted" lists, including genus, species, common name and a brief description, to Ray Rogers in care of the Society. Please type or print neatly. We will publish "Plants Wanted" requests on a space-available basis.

- Aesculus octandra forma virginica, a form of sweet buckeye that has pink flowers. Brian Pearson, Route 2, Box 149, Marinette, WI 54143.
- Aster tataricus, tartarian aster, a perennial species with blue-purple ray florets. Native to Japan, China and Siberia. Mrs. Jacqueline Ercoreca, 3319 North Troy, Chicago, IL 60618.
- Campanula 'Marian Gehring', a hybrid between *C. punctata* and *C. medium* that is described in Liberty Hyde Bailey's *The Garden of Bell-flowers*. A two- to three-foot plant, it bears pyramidal clusters of pale lavender, bell-shaped flowers. Joy H. Yarnell, H.C.R., Box 580, Upton, ME 04261.
- *Celosia cristata* 'Alba', a whiteflowered form of the crested cockscomb. Irene W. Bryant, 50 West Lake Street, Skaneateles, NY 13152.
- Eragrostis tef (formerly E. abyssinica), teff or African grass, a three-foot species that is occasionally grown as an ornamental and whose seeds are used for food in its native habitat. Jack Baur, 500 West Montgo Avenue, Rockville, MD 20850.
- *Erythrina variegata* (formerly *E. indica*), a variegated species of coral tree that is native to the Philippines and Indonesia. Randy Robinson, 2305 NE 45, Portland, OR 97213.
- *Piqueria trinervia*, stevia, a daisy family member grown for its fragrant white flowers, which are borne in winter. Mrs. Vera Barksdale, Route 1, Box 117, Cave City, AR 72521.
- Vetiveria zizanioides, vetiver or khus-khus, a grass from tropical India that is grown for its sweetscented roots and is used in woven handicrafts. Cynthia Johnson, 6604 North McGee, Gladstone, MO 64118.

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# American Horticultural Society

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AND

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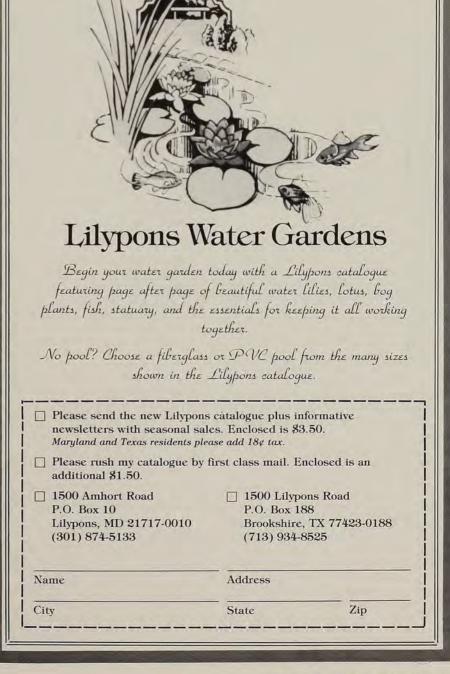
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## Computers Predict Pollution Potential of Pesticides

Computers may soon be able to determine if new pesticides will be safe in the soil, water and air, says Dr. William F. Spencer, a USDA Agricultural Research Service (ARS) soil scientist. "We are in the last experimental stage of creating a computer model to forecast what a potential pesticide will do in the environment," he said. The computer model will be able to trace "all possible routes a pesticide might take, just as though it were released in the environment." According to Spencer, it will give a "comprehensive picture of how compatible new pesticides will be with our environment. We will be able to spot new pesticides that have excessive mobility, persistence or toxicity before they are released into the environment.'

Spencer's pesticide forecasting model will eventually be linked to other computer systems that are emerging from the agency's environmental quality research, said Dr. Ronald F. Follett, who coordinates these studies for ARS's National Program Staff in Fort Collins, Colorado.

"We're also doing computer modeling to predict the quantity of pesticides that might be carried in sediment when it rains. Some pesticides adhere to soil particles, and erosion can move them into surface water supplies," said Follett. In addition, he said, the agency is beginning computer modeling to predict pesticide

movement in the soil below root zones and a pesticide's potential for reaching ground water.

According to Follett, Spencer identifies the unique properties of chemicals used in pesticides and what they do in soil, water and air. Over 700 registered compounds can be formulated into thousands of pesticide products. Spencer and scientists at the University of California-Riverside are screening pesticides on the market and entering the chemical properties into the model.

Initial tests in the laboratory have shown that the model can accurately predict a pesticide's behavior. As more pesticides are plugged into the model, the model's accuracy will be fine-tuned for forecasting the effect of different formulas under various uses. "In tests, the model supplies practically instantaneous information on how the pesticides will likely move in the field," said Spencer. How fast a pesticide degrades will also be predicted, the soil scientist said. "Pesticide data in the computer will tell us the chemical residues and their life expectancies." However, as Spencer noted, "this model will not eliminate the need for regular testing of new pesticides before they go on the market.'

## Winning Roses Listed

The American Rose Society has compiled its annual list of top exhibition roses in the United States. The list, which includes the cultivars that won the most points in rose shows across the country, is divided into four categories: Hybrid Teas, Grandifloras, Floribundas and Miniatures.

The top ten hybrid tea cultivars are 'Pristine', 'Color Magic', 'Double Delight', 'Toro', 'First Prize', 'Paradise', 'Royal Highness', 'Olympiad', 'Garden Party', and 'Peace' and 'Swarthmore', which tied for tenth place. 'Gold Medal', 'Queen Elizabeth', 'Sonia', 'Pink Parfait' and 'Aquarius' were the

top five grandiflora cultivars. The highest-scoring floribunda roses were 'Europeana', 'French Lace', 'First Edition' and 'Cherish'. 'Party Girl', 'Minnie Pearl', 'Dreamglo', 'Snow Bride' and 'Red Beauty' led the list of miniature cultivars.

According to the American Rose Society, many of these cultivars are excellent garden roses as well as show roses (many received All-America Rose Selections Awards), and are excellent choices for the beginning rose grower.

—American Rose Magazine, May 1985

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