

# American Horticulturist



*Giant Magnolias* is one of over 100 paintings and drawings on exhibit at the Whitney Museum of American Art (945 Madison Ave., New York, NY 10021) from March 1 to May 20. The exhibition, "Reflections of Nature: Flowers in American Art," is the first major museum display to explore the history of the tradition of floral representations in American art. For other spring garden events, see Gardener's Dateline on page 10.

## River Farm Notes

**L**adies and gentlemen, plants are neat." That's how it all began for Steve Davis, Director of Grounds and Buildings at the American Horticultural Society. It was the end of his junior year at Old Dominion University in Norfolk, Virginia. Taking a botany course merely to fulfill requirements, Steve ran into one of those once-in-a-lifetime professors, Dr. Ly-

ton J. Musselman, who opened his class with that simple but convincing affirmation.

After his initial course with Dr. Musselman, Steve knew one thing for sure: "I had to grab every course I could and get totally immersed." The love of plants had hooked him, and, like many converts, he made up for lost time, beginning his graduate studies well before receiving his undergraduate degree. Encouraged by Dr. Musselman to study aquatic plants, Steve chose a sound on the North Carolina coast and started mapping underwater vegetation. He quickly learned to skin-dive and built

himself a tiny boat with a window in the bottom. It took a year to collect the necessary data for his thesis, which explored the causes of gradations in the flora. While working on his thesis, Steve started learning all he could about horticulture. "Once I got started, I couldn't stop trying to learn everything I could about plants," he said.

Steve was at home in northern Virginia writing up his thesis when he saw an ad in the *Washington Post*. The American Horticultural Society's Plant Science Data Center needed a botanist, and, though the pay was low, Steve

*Continued on page 2*

# River Farm Notes

Continued from page 1

took the job, delighted to be at what he calls "the forefront of American horticulture." Less than a year later, he became the Society's first Director of Grounds and Buildings. Since no one had performed that function in the five years the Society had been at River Farm, Steve had to use a "ground-floor-up" approach.

"It took a year just to get things in order," Steve explained. "Much of the grounds had been taken over by Mother Nature. Peripheral plantings were obscured by other growth, and we had to try to grab them back. We had to establish schedules for watering, spraying and feeding, and we had to determine what plantings already existed on the grounds." Despite these herculean challenges, Steve and his crew managed to put in new plantings that first year, including the first All-America Rose Selections Garden at River Farm.

"Each year thereafter we've been able to further fill in the canvas," Steve said, explaining that much of the filling-in was made possible by plant societies' donations of materials for special beds at River Farm. Steve cited as one of his major accomplishments the development of the Ideas Garden, a group of raised beds displaying uncommon plants and novel planting techniques. "We want to show people who usually buy flats of



Steve Davis

petunias and wax begonias what they can do with other things," he said. According to Steve, visitors especially like the Children's Garden, a garden of easy-to-grow plants that capture children's imaginations, including popcorn, sunflowers and fruiting vines.

It's not surprising that Steve developed a Children's Garden. His co-workers marvel at his teaching ability as he leads groups of kindergartners through the very basic steps of producing a garden. Somehow he manages to keep his squirm-prone audiences of 20 five-year-olds engrossed with stories of seeds asleep in the earth, reaching for the sun, waving gently in the rain.

Like every gardener, Steve has his frustrations. "It's difficult not being able to do what's in my mind. All the fabulous things we could do with the gardens. . . ." Asked what his priority is for this gardening season, Steve replied, "Every year my goal is that we never fall behind. Even though we never have enough staff, I want this to be the year we really shine. I don't want anyone to come in here to visit the home of American horticulture and walk away dissatisfied. Every true gardener takes pride in his plantings, and it's that pride that carries you through."

I asked Steve a tough question: "What are your favorite plant groups?" "I can't think of any plants I don't like," he said. "If you love plants, you love plants." Prodded a little further, Steve admitted a special fondness for aquatic plants. "They're so mysterious, springing up from beneath the water into something fantastic, the lilies especially." In light of

this interest, Steve is particularly excited about the new Aquatic Garden at River Farm, installed with the help and generosity of Lilypons Water Gardens last fall.

The only other plant group Steve would single out as a special favorite was begonias. "For the begonia connoisseur, the foliage is fantastic—the angel-wing shapes, the shades of green, the silver speckles." Steve and his wife Rose (a plant-lover he met at the American Horticultural Society) are active in the Potomac Chapter of the American Begonia Society in the little spare time they have. With three young children, two dogs, one cat, several hundred house plants and a plant-label manufacturing business Rose runs at home, there's not a lot of time to spend on extracurricular horticultural pursuits.

With responsibility for all building maintenance as well as the grounds at River Farm, and for the coordination of the Society's annual Seed Program, Steve usually wishes there were more hours in the day. But we who work with him can count on his constant cheerfulness and enthusiasm.

"There's a wonderful vibration that goes through you when you love what you're doing and you can't wait to get back to work each day," Steve said. For him, each day brings another opportunity to echo the words of that very important professor: "Plants are neat." —Connie Clark

## Board Nominations

It is time to begin thinking about nominations for the Society's Board of Directors election scheduled for the Annual Meeting in San Antonio, October 31-November 3, 1984. The Nominating Committee, appointed by AHS President Edward N. Dane, consists of Mrs. Edward C. Sweeney (Chairman), Mr. Richard J. Hutton, Mrs. Harry J. Van de Kamp and Dr. Julia Rappaport.

Members are encouraged to submit names to the Committee. Suggestions should be accompanied by resumes detailing the candidate's horticultural and/or professional interests, and should be addressed to the Nominating Committee in care of the Society.

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## 1984 Awards Nominations Sought

Members are invited to recommend candidates for the Society's 1984 awards, to be presented at the Society's Annual Meeting in San Antonio, October 31-November 3, 1984. The Awards and Citations Committee will meet soon to nominate individuals, and welcomes suggestions from the general membership. The Committee will be determining a roster of candidates for the Liberty Hyde Bailey Medal, the G. B. Gunlogson Award and the Citation awards.

The Liberty Hyde Bailey Medal is the highest award the Society can bestow on an individual. To qualify for this award, an individual must reside on the North American continent and must have made significant contributions in at least three of the following areas of horticultural activity: teaching, research, writing, plant exploration, administration, art, busi-

ness and leadership.

The G. B. Gunlogson Award is given for the creative use of new technology to make home gardening more productive and enjoyable.

Citations are awarded to individuals, firms or institutions that have accomplished something unusual and of national importance in one of the following nine aspects of horticulture: scientific, commercial, professional, amateur, teaching, landscape, architecture, horticultural writing, local horticulture (in the Annual Meeting host city) and meritorious service.

If you would like to suggest nominations for any of these categories, please forward the name(s) of your nominee(s), as well as pertinent biographical information, to Ms. Carolyn S. Marsh, in care of the Society, no later than May 31.

## Western Regional Meeting Planned

The Western Regional Conference of the American Horticultural Society will hold its fourth regional meeting on May 12, 1984. The meeting will take place at the new, 25-acre Arboretum located on the campus of California State University, Fullerton, California. Lectures, workshops and a luncheon are planned.

In addition to meeting fellow AHS members and learning more about West coast gardening, participants will have a unique opportunity to tour one of the nation's newest arboreta. Unlike most arboreta, which organize their plants by continents, the Fullerton Arboretum groups plants according to their ecological requirements. Therefore, it is possible to observe plants of different families that have evolved similar adaptive features in response to similar environmental conditions.

Among the Arboretum's collections is a group of rare subtropical fruit trees planted by the California Rare Fruit Growers Association. Sections currently under development include a cactus and succulent garden, and a collection of Mediterranean-type plants. The latter section boasts a California chaparral hill comprised of

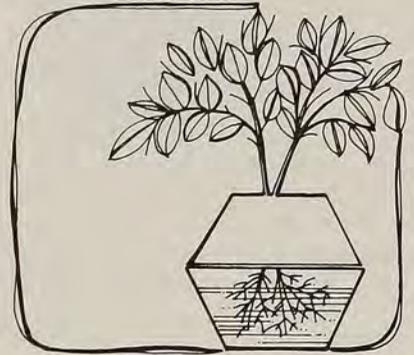
such specimens as *Arctostaphylos* (manzanita), *Heteromeles arbutifolia* (Christmas berry) and *Gelvisia speciosa* (island snapdragon). Surrounding the chaparral hill will be coastal sage scrub as well as plants from the California Channel Islands, South Africa, Australia and Chile.

The Fullerton Arboretum has three acres devoted to historical subjects. Here, visitors are treated to herb and medicinal gardens, a Victorian rose garden and an orchard of fruit varieties important to the early economy of Orange County. Other features of interest at the Arboretum are the carnivorous plant bog, constructed outside under a shade roof, and the Aquatic System, which runs the entire length of the Arboretum (10 miles). The water is circulated over a waterfall, down a stream, into a pond and finally into a lake. The lake is lined with clay to simulate a natural lake bottom and has been allowed to become a natural ecosystem.

Please join us in Fullerton on May 12 for an exciting and stimulating meeting! For more information on the Western Regional Conference Meeting, write to Dr. Julia Rappaport in care of the Society.

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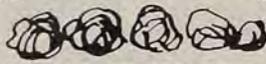
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# Endangered Plant Update

**T**he U.S. Fish and Wildlife Service has added one plant to the list of Endangered and Threatened Species and has proposed that eight other species be listed as Endangered. One plant proposed for listing as Threatened was withdrawn.

*Panicum carteri*, commonly called Carter's panicgrass, is an annual grass found only on the island of Mokoli'i in Hawaii. It has been listed as an Endangered Plant. The population of this species varies from year to year, apparently in response to the amount of rainfall. As recently as 1975 the species was thought to be extinct. The major threats to Carter's panicgrass are vandalism, trampling, fire and possible habitat disturbance.

*Camissonia benitenensis*, San Benito evening-primrose, has been proposed for listing as Endangered. This small, yellow-flowered annual exists only in a few scattered populations in San Benito County, California. The remaining plants and their habitat are being destroyed by heavy off-road vehicle use. Biologists estimate that less than 1,000 specimens remain.

Seven other plants proposed for listing as Endangered are found only in Ash Meadows, a valley northwest of Las Vegas, Nevada. According to the *Endangered Species Technical Bulletin*, the area "is a unique and diverse desert wetland ecosystem within one of the most arid regions of the world. . . . A limited amount of water is provided by several dozen small springs and seeps which are fed by an aquifer formed more than 10,000 years ago when water was more plentiful. . . ." The seven species proposed for listing are as follows:

*Centaurium namophilum* var. *namophilum*, commonly called spring-loving centaury, is an erect, pink-flowered, 18-inch annual that grows in moist clay soils.

*Grindelia fraxino-pratensis*, Ash Meadows gumplant, is a biennial or perennial that bears an inflorescence of yellow flowers on three-foot-tall plants. It is primarily found in salt-grass meadows and along streams and pools.

*Ivesia eremica*, Ash Meadows

ivesia, is a perennial that bears a tuft of leaves atop a woody root crown. It is found in salty seep areas with clay soils.

*Mentzelia leucophylla*, Ash Meadows blazing star, is a 20-inch perennial with light yellow flowers borne in an inflorescence. It is found in sandy or saline soils.

*Astragalus phoenix*, Ash Meadows milk-vetch, is a low, mound-shaped perennial with pink to purple flowers. It is found on dry, saline clay flats, knolls and slopes.

*Enceliopsis nudicaulis*, Ash Meadows sunray, is a clump-forming perennial that reaches a height of four to 16 inches. It bears its daisy-type flowers singly on leafless stalks. It is found in dry washes on saline soil.

*Nitrophila mohavensis*, Amarosa niterwort, is a low-growing and long-

## Endangered Species Bulletin

Individuals who are interested in the Endangered Plant and Wildlife program will be pleased to learn that the *Endangered Species Technical Bulletin* is now available by paid subscription. The *Technical Bulletin*, a publication of the U.S. Fish and Wildlife Service Endangered Species Program, includes articles and reports on the status of rare and endangered plants and wildlife in the United States. The bulletin will be reprinted and distributed by the World Wildlife Fund-U.S. in conjunction with the Wildland Management Center at the University of Michigan's School of Natural Resources. In addition to the monthly *Technical Bulletin*, subscribers will receive an insert summarizing the activities of these two organizations.

For a one-year subscription, send \$12.00 (check or money order) to Endangered Species Technical Bulletin, Wildland Management Center, School of Natural Resources, University of Michigan, Ann Arbor, MI 48109.

lived plant that has inconspicuous flowers and small, bright green leaves. It is found on salt-encrusted alkali flats.

The Service has withdrawn the proposal to list silverling, *Paronychia argyrocoma* var. *albimontana*, as Threatened. According to the *Technical Bulletin*, new information indicates that "the plant's name does not represent a valid, distinct biological entity." Research indicates that the variety *albimontana* is "not taxonomically separable from other populations of the species," according to the *Technical Bulletin*. No botanical characteristics could be found that consistently separate New England populations of the plant from those found in the Appalachian Mountains.

—*Endangered Species Technical Bulletin*, November 1983

## Memorial Gifts at River Farm

Over the years, the Society has had the good fortune to receive a number of donations in memory of devoted gardeners. Our new Adopt-A-Plant Program seems to have sparked further interest in giving memorial gifts to the Society for use in its grounds development and maintenance efforts.

Any member or friend of the Society is welcome to "adopt" a plant or garden here at River Farm in memory of a loved one. Such gifts will be listed in a Memorial Gifts Book to be kept in one of our public rooms here. We will also be happy to send notification of gifts to appropriate family members, and we will announce gifts over \$100 in our Annual Report.

If you have not received our Adopt-A-Plant brochure, I will be happy to send you one. It lists all kinds of individual plants and gardens that are available for sponsorship. However, if you do not wish to specify a particular plant or garden, a general gift to our operating fund will be most welcome.

Please feel free to write to me or to call me (703-768-5700) if I may be of assistance in arranging a gift to honor the memory of a special gardener in your life. —*Connie Clark*

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# Chestnut Blight Report

The search continues for an answer to chestnut blight, the dreaded fungal disease that destroyed approximately 3½ billion American chestnuts from 1905 to 1950. Scientists from several states continue to study the blight, but researchers in Michigan have the opportunity to study in a unique natural laboratory.

Michigan has the largest known population of surviving American chestnuts in the country. Approximately 11,000 mature specimens have been identified, most of which are growing along the shores of Lake Michigan. Some of the trees have never been infected with the blight. Scientists are intrigued by the fact that these healthy trees have been found both in isolation and in the midst of infected groves.

Chestnut blight does not infect the roots of the tree; afflicted trees die to the ground but can sprout again and even produce nuts. Once a tree is infected, however, it continues to harbor the fungus. Reports indicate that the fungus also survives on oak trees but is not harmful to them.

The fungus that causes chestnut blight, *Endothia parasitica*, cannot be eradicated by chemicals, fire or pruning. However, *E. parasitica* can be weakened by a virus, and the virus-

infected fungus produces a natural vaccine that allows trees to withstand the deadly form of the fungus. Scientists are studying this weakened, or hypovirulent, strain of the blight-causing fungus to understand how this natural vaccine works.

Dennis Fulbright, a Michigan State University plant pathologist, is one of the individuals working on the problem as part of a U.S.D.A. research program. (Research is also being conducted in Connecticut, Kentucky, Tennessee, Virginia and West Virginia.) Fulbright is attempting to learn more about the biological phenomena that are producing the disease-fighting reaction in some trees, in hopes that synthetic vaccines can be produced. Information about this reaction may lead to natural inoculants that could be used in the fight against Dutch elm disease as well as stone fruit diseases caused by fungi.

Fulbright has inoculated healthy 20-year-old chestnuts using a cultured gel of the hypovirulent strain of the fungus. The gel is applied to small wound holes that are then covered to prevent the fungus from drying up. During a three-month period, the wounds swell and are eventually covered with callus tissue. The development of this tissue indicates that inoculation has occurred. If a

virulent strain of the blight attacks the tree, the hypovirulent strain should spread to the infected area and fight the blight.

According to Fulbright, the inoculation process causes diseased trees to recover, but its effects on healthy trees have varied. He refuses to inoculate homeowners' healthy trees because of the unsightly wound tissue that results. In addition, a tree that is young or environmentally stressed could be killed by an injection of hypovirulent fungus.

Fulbright is also experimenting in the greenhouse with a milder form of the hypovirulent fungus, which he injects into seedlings.

At this point, scientists do not know how to protect healthy American chestnut trees other than by giving them a mild form of the blight, which causes scar tissue to form as a by-product of immunity. "I think I can keep alive any American chestnut tree in any place in the U.S., but I probably could not keep an entire forest alive," Fulbright says.

Fulbright and other scientists are now studying the basic biological processes that contribute to the immune response. He has identified six virus-like molecules that are able to trigger the production of hypovirulent fungal strains. These molecules link up with microscopic threads on disease-producing fungi.

Researchers are studying the makeup of the six different molecules as well as the effects they have on different fungi. "By understanding these virus-like molecules, we should be able to isolate them and put them into fungi that are killing economically important crops," Fulbright says. One of the molecules being studied appears to grow more rapidly than others; it has been observed to form a spore-producing hypovirulent fungus that could travel from tree to tree, providing disease resistance for an entire orchard, for example.

Because of its many healthy stands of chestnuts, "Michigan is now one of the leading American chestnut seed exporting states," according to Fulbright. He adds, however, that there is no way to guarantee that exported seedlings are disease free.

Residents of Cadillac, Michigan who

## Children's Garden Project

Children in southern California have a unique opportunity to learn about gardening thanks to a new outdoor gardening program now under way at the Giant Step Child Care Center in Orange. Initiated with funds from the American Horticultural Society's Education Program and the Orange County Medical Association Auxiliary Educational Grants Program, the project is sponsored by the Central Orange County YWCA.

Before the program began, the 40-by-50-foot garden site at Giant Step was weeded and rototilled. Program supervisors also conditioned the soil and built planting boxes for the garden. Since the start of the school year, the children have studied about

seed and germination. Currently, the young gardeners are involved with planting cool-weather vegetables.

The program is under the supervision of Mrs. Mary Jane Mann, YWCA Director, and student instructor Anni Wong. Mrs. Naomi Zohman of the Friends of Fullerton Arboretum, and Dr. Julia Rappaport, AHS Board member, serve as consultants.

Society members living in the area are encouraged to visit the garden and to experience firsthand the joys of working with children in the garden. It is located at 146 Grand Avenue, Orange, CA, (714) 633-4950.

For more on children and gardening, look for the article in the April issue of *American Horticulturist*.

live near a healthy stand of American chestnuts known as the Magnificent Seven have been collecting nuts from these trees each fall and planting them in a Soil Conservation District nursery. The seedlings are marketed throughout the country. Gardeners who would like to experiment with these seedlings should write to the Wexford County Soil Conservation District, 3060 West 13th Street, Cadillac, MI 49601, for a 1984 price list. Minimum order is 25 seedlings.

—Laurie Wink,  
American Nurseryman,  
January 15, 1984

## Wildflower Sod

Researchers in Massachusetts have found that some wildflowers can be used to produce useful sod. Those plants found to yield successful wildflower sods include black-eyed Susan, evening primrose, yarrow, oxeye daisy, purple coneflower, blanket-flower and dame's rocket. Plants with taproots failed to produce good sods.

Experimenters used plastic half-flats lined with cheesecloth and three different commercial potting mixes, all of which proved satisfactory.

—Pacific Horticulture,  
Winter 1983

## Herb Society Scholarship

The Herb Society of America offers an annual grant of up to \$4,000 to "persons with a proposed program of scientific or academic investigation of herbal plants." Among the possible areas for investigation are the following: history; medicinal research and usage from a historical perspective; fragrance; flavor; crafts; horticulture; landscaping; economic importance; chemurgy; taxonomy; hardiness; political and social influence; symbolism in art or literature; and uses in religion.

For information concerning the Scholarship Program of the Herb Society of America, write Mrs. Booker Worthen, Scholarship Chairman, 31 Edgehill Rd., Little Rock, AR 72207. Grant applications must be post-marked no later than March 15.



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## "Killer Bee" Update

The United States Department of Agriculture has predicted that Africanized honeybees—the so-called "killer bees"—will reach the United States between 1988 and 1992. According to USDA's report, the bees will first spread to Texas and Arizona from Central America: "Not many scientists believe that the deserts of Mexico will serve as a barrier to the hybrids' [Africanized bees'] northern movement as the wastelands of the Sahara Desert have blocked their progress in Africa."

The Africanized honeybee is the result of matings between an African subspecies of the Western honeybee, *Apis mellifera scutellata*, and several European subspecies. It was first brought to Brazil from Africa in 1956 for breeding purposes; some of the hybrids escaped and began to interbreed with the European bees in the area. The resulting hybrids are now present throughout most tropical and subtropical areas of South America and farther north, in Panama.

Africanized bees have been found to sting more than the average honeybee in the United States (hence the name "killer bee"), though their sting is no more venomous than that of the domestic honeybee. Africanized bees also swarm more often and tend to react to disturbances more quickly than the domestic honeybee. Finally, Africanized bees abscond (leave the colony completely to travel to a new location) more often than domestic bees. Africanized bees will abscond on flights as long as 50 miles, a trait that has contributed to an average movement rate of 200 miles per year. Absconding was necessary for survival in Africa when areas were struck by dry spells and bees were forced to move to find food.

The behavioral differences exhibited by the bee will have major effects on beekeeping and agriculture in the United States. Beekeepers will have to wear more protective clothing when working with colonies, and colonies will have to be located at a greater distance from people and animals. Furthermore, labor will be more costly because of the discomfort in working with these bees.

Scientists from the ARS Bee Breed-



ing Laboratory have determined that Africanized honeybees produce less honey than European honeybees. Studies indicate that European bees collect nectar with a greater concentration of sugar, carry larger loads, make shorter trips, and communicate the locations of good sources to other bees in the colony by dancing more often than Africanized bees. Venezuela reported a large drop in honey production when the Africanized bees entered the country and increased their population. According to the report, this drop was due partly to the bees' less efficient honey production and partly to beekeepers' going out of business because of the excessive stinging.

While the presence of Africanized honeybees could have a detrimental effect on honey production in the U.S., scientists at the USDA research agency's Bee Breeding Laboratory in Baton Rouge, Louisiana believe that the impact of the bee could be lessened. For instance, using genetic selection techniques, populations of both Africanized and European honeybees could be manipulated to produce gentler, more productive strains of bees.

Scientists are collecting genetic information on bees so they can choose the best colonies and breed them to produce bees that are more gentle, better honey producers and less prone to swarm. In various sections of Brazil, where domestic colonies of bees have been effectively maintained by expert beekeepers, constant culling of the worst colonies and replacement with gentle strains have been effective. As a result, in central and southern Brazil, stinging by honeybees is now less of a problem.



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April 8-11, 1984

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Other Symposium authorities include: Gordon Chappell, director, landscape maintenance, Colonial Williamsburg; Robert DeFeo, plant propagator, U.S. National Arboretum; Viki Ferreniea, lecturer; Ty and Julie Hotchkiss, wildlife lecturers; Norman Kent Johnson, editor, *Garden Design* magazine; Frederick McGourty, retired director of education, Brooklyn Botanic Garden; Richard Mahone, director, horticultural projects, Colonial Williamsburg; Libbey Oliver, supervisor, flower arrangements, Colonial Williamsburg; Donald H. Parker, FASLA, director, landscape architecture, Colonial Williamsburg; Mary Helen Ray, Historic Preservation Chairman, National Council of State Garden Clubs, Inc.; Bertha Reppert, owner, Rosemary House, Mechanicsburg, Pennsylvania, author, lecturer; Charles B. Thomas, president, Lilypons Water Gardens, Lilypons, Maryland; Rollin Woolley, landscape supervisor, Colonial Williamsburg.

## Registration Information

Garden Symposium registration must be made in advance and be accompanied by a check for \$125 per person. This fee covers lectures, tours of Colonial Williamsburg's gardens, exhibition buildings, craft shops, Carter's Grove plantation and Bassett Hall, teas, clinics, workshops, reception, concert, and luncheon. It does not include other meals and lodgings. Send check payable to the Colonial Williamsburg Foundation, and registration form to Mrs. Trudy Moyles, P.O. Drawer C, Williamsburg, Virginia 23187.

### 38th WILLIAMSBURG GARDEN SYMPOSIUM

April 8-11, 1984

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_____ South Wing	\$ 81
_____ West Wing	\$ 91
_____ Motor House	\$ 62

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Hotel rates include lodging only. Please give two choices for accommodations, since it is not always possible to reserve your first choice. All accommodations are attractive and every effort is made to give registrants their first choice. A deposit is not necessary to reserve a room.

Written notice of cancellation must be received on or before March 26, 1984, to qualify for a refund of the fee.

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(other than spouse)

(print name)

(address)

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# Gardener's Dateline

## **MARCH-MAY**

### **Mobile Azalea Trail and Festival**

Mobile, Alabama. Information: Mobile Area Chamber of Commerce, PO Box 2187, Mobile, AL 36652, (205) 433-6951.

## **MARCH 3-11**

### **Cincinnati Home and Garden Show**

Convention Center, Cincinnati, Ohio. Hours: Weekdays 5 to 10 p.m.; Saturdays 1 to 10:30 p.m.; Sundays 1 to 7 p.m. Admission: Adults \$3.50; Children \$1.00. Information: Hart Productions, Inc., 1172 W. Galbraith Rd., Cincinnati, OH 45231, (513) 522-7330.

## **MARCH 3-11**

### **Indiana Flower and Patio Show**

Indiana State Fairgrounds, Exposition and Expo-Pavilion Buildings, Indianapolis, Indiana. Hours: Monday through Thursday 11 a.m. to 9 p.m.; Friday and Saturday 11 a.m. to 10 p.m.; Sunday 10 a.m. to 6 p.m. Information: PO Box 20189, Indianapolis, IN 46220, (317) 255-4151.

## **MARCH 5-12**

### **Eleventh World Orchid Conference**

Miami, Florida. Information: Eleventh World Orchid Conference, Inc., PO Box 59-5150, Miami, FL 33159, (305) 635-6144.

## **MARCH 7-11**

### **Tennessee Lawn and Garden Fair**

Tennessee State Fairgrounds, Nashville, Tennessee. Information: Richard C. Page, Director, Botanical Gardens, Cheekwood Botanical Gardens and Fine Arts Center, Nashville, TN 37205, (615) 356-3306.

## **MARCH 8-11**

### **Metropolitan Louisville Home Garden and Flower Show**

Kentucky Fair & Exposition Center, Louisville, Kentucky. Information: Metropolitan Louisville Home Garden & Flower Show, 1800 Arthur St., Louisville, KY 40217, (502) 637-9737.

## **MARCH 8-11**

### **Garden Writers Association of America Southern Regional Symposium**

Coconut Grove Hotel, Miami, Florida. Information: GWAA, Fairchild Tropical Garden, 10901 Old Cutler Road, Miami, FL 33156, (305) 667-1651.

## **MARCH 9-11**

### **Horticultural Society of New York Spring Flower Show**

Horticultural Society of New York, 128 West 58th St., New York, New York. Hours: Friday 10:30 a.m. to 7 p.m.; Saturday 10:30 a.m. to 6 p.m.; Sunday 10:30 a.m. to 5 p.m. Admission: General \$2.00.



**Palms, cycads, bromeliads, orchids, hibiscus and many other trees native to South Florida and the Bahamas await AHS Spring Symposium participants at Fairchild Tropical Garden. For more information on the Symposium, which will take place March 14-17, call the Society's Department of Education.**

Information: The Horticultural Society of New York, 128 West 58th St., New York, NY 10019, (212) 757-0915.

## **MARCH 10-18**

### **New England Spring Garden and Flower Show**

Bayside Exposition Center, Boston, Massachusetts. Hours: Sundays 10 a.m. to 8 p.m.; Monday through Saturday 10 a.m. to 10 p.m. Admission: General \$6.00; Advance \$4.00. Information: Bette Levine, Flower Show Secretary, Horticultural Hall, 300 Massachusetts Ave., Boston, MA 02115, (617) 536-9280.

## **MARCH 11-18**

### **Philadelphia Flower Show**

Philadelphia Civic Center, Philadelphia, Pennsylvania. Hours: Sunday 10 a.m. to 6 p.m.; Monday through Saturday 10 a.m. to 9:30 p.m. Admission: Adults \$6; Children under 12 \$3; Advance Group \$5.25. Information: Pennsylvania Horticultural Society, 325 Walnut St., Philadelphia, PA 19106, (215) 625-8250.

## **MARCH 14-17**

### **American Horticultural Society Spring Symposium**

Miami, Florida. Information: See the January issue of *American Horticulturist*, or call the Society's Department of Education.

## **MARCH 17-25**

### **Buffalo Home and Garden Show**

Buffalo Convention Center, Buffalo, New York. Information: Buffalo Home and Garden Show, Suite 527, Statler Building, 107 Delaware Ave., Buffalo, NY 14202, (716) 852-2006.

## **MARCH 18-26**

### **AHS Post-Symposium Tour**

Florida's west coast, the Everglades and EPCOT. Information: See the January issue of *American Horticulturist*.

## **MARCH 18**

### **Third Annual Tour of Valley Gardens**

Phoenix, Arizona. Hours: 1 to 5 p.m. Information: Desert Botanical Garden, PO Box 5415, Phoenix, AZ 85010, (602) 941-1217.

## **March 21-25**

### **10th Annual New Hampshire Spring Flower and Garden Show**

Manchester Armory, Manchester, New Hampshire. Hours: Wednesday through Saturday 10 a.m. to 9 p.m.; Sunday 1 to 7 p.m. Information: New Hampshire Flower Shows, Inc., Pinkerton St., Derry, NH 03038, (603) 434-6557.

## **MARCH 22-25**

### **First Annual Houston Flower and Garden Show**

AstroArena, Astrodome Complex, Houston, Texas. Hours: Thursday and Friday 1 to 10 p.m.; Saturday 11 a.m. to 10 p.m.; Sunday 11 a.m. to 7 p.m. Admission: Adults \$5.00; Children under 12 \$1.00. Information: PACE Management Corporation, 1124 Lovett Blvd., Houston, TX 77006, (713) 526-7666.

## **MARCH 22-25**

### **Central Missouri Home Lawn and Garden Show**

Hearnes Multi-Purpose Building, Columbia, Missouri. Information: Central Missouri Home Lawn & Garden Show, c/o Page Enterprises, Inc., Route 3, Box 12, Gravois Mills, MO 65037, (314) 372-2277.

## **MARCH 24-APRIL 1**

### **Portland Home and Garden Show**

Multnomah County Exposition Center, Portland, Oregon. Information: Portland Home & Garden Show, c/o To-Ro Enterprises, Inc., PO Box 25348, Portland, OR 97225, (503) 246-8291.

## **MARCH 25**

### **Rhododendron Species Foundation Early Blooming Species Walk**

Federal Way, Washington. Hours: 1 to 5 p.m. Admission: Adults \$2.00; Children under 12 free. Information: Rhododen-

dron Species Foundation, PO Box 3798, Federal Way, WA 98003, (206) 927-6960, (206) 838-4646.

**MARCH 25-29**  
**49th Annual Savannah Tour of Homes and Gardens**

Savannah, Georgia. Information: Savannah Tour of Homes and Gardens, Advance Order Department, 18 Abercorn St., Savannah, GA 31401.

**MARCH 28-APRIL 1**  
**Washington Flower and Garden Show**

Washington Convention Center, Washington, D.C. Hours: Wednesday through Saturday 10 a.m. to 10 p.m.; Sunday 10 a.m. to 8 p.m. Information: TJS Productions, 7668 B Fullerton Rd., Springfield, VA 22153, (703) 569-7141.

**MARCH 31**  
**Winterthur Gardens Conference: "Landscape of the Orient: The Impact on Western Design"**

Copeland Lecture Hall, Winterthur Museum and Gardens, Winterthur, Delaware. Information: Gardens Conference, Education Division, Winterthur Museum, Winterthur, DE 19735, (302) 656-8591.

**APRIL 1-4**  
**Men's Garden Clubs of America National Convention**

Sheraton Hotel, 301 Government Street, Mobile, Alabama. Information: Men's Garden Clubs of America, Inc., 5560 Merle Hay Rd., Des Moines, IA 50323.

**APRIL-MAY**  
**Sundays and Wednesdays Only.**  
**Rhododendron Species Foundation Primary Blooming Season Walks**

Federal Way, Washington. Admission: Adults \$2.00; Children under 12 free. Hours and information: Rhododendron Species Foundation, PO Box 3798, Federal Way, WA 98003, (206) 927-6960, (206) 838-4646.

**APRIL 8-11**  
**38th Williamsburg Garden Symposium**

Williamsburg, Virginia. Admission: \$125.00. Information: Colonial Williamsburg Foundation, PO Box C, Williamsburg, VA 23187.

**APRIL 8-15**  
**African Violet Society of America 38th Annual Convention**

City Line Marriott Hotel, Philadelphia, Pennsylvania. Information: Mrs. Joy P. Brooks, Registration Chairperson, PO Box 42739, Philadelphia, PA 19101.

**APRIL 13-15**  
**Western Washington Spring Gardening Show**

Western Washington Fairgrounds, Puyallup, Washington. Information: Spring Gardening Show, PO Box 58923,

Seattle, WA 98188, (206) 453-6242.

**APRIL 13-29**  
**Dogwood Arts Festival**

Knoxville, Tennessee. Information: Dogwood Arts Festival Office, 203 Fort Hill Building, Knoxville, TN 37915, (615) 637-4561.

**APRIL 14-15**  
**National Primrose Show and Plant Sale**

Pavilion Outlet Center, 17900 Southcenter Parkway, Seattle, Washington. Hours: Saturday 10 a.m. to 6 p.m.; Sunday 11 a.m. to 5 p.m. Admission: Free. Information: Irene Buckles, Show Chairman, 13732 45th Ave. S., Seattle, WA 98168, (206) 242-3846.

**APRIL 21-29**  
**Garden Club of Virginia 51st Historic Garden Week**

Information: Historic Garden Week Headquarters, 12 East Franklin St., Richmond, VA 23219, (804) 644-7776.

**APRIL 26-MAY 16**  
**AHS Tour of Japan**

Information: Call or write the Society's Department of Education.

**APRIL 26-29**  
**American Rhododendron Society Annual Meeting**

Marriott Hotel, Perimeter Center, Atlanta, Georgia. Information: Donna Coleman, 7997 Pleasant Hill Rd., Lithonia, GA 30307, (404) 482-1289.

**APRIL 26-MAY 13**  
**Maryland House and Garden Pilgrimage**

Information: Maryland House & Garden Pilgrimage, 1105 A Providence Rd., Baltimore, MD 21204, (301) 821-6933.

**APRIL 27-29**  
**Suburban New York Home and Garden Show**

Rockland Community College Field House, Suffern, New York. Information: Suburban New York Home & Garden Show, Suite 301, 900 Kings Highway North, Cherry Hill, NJ 08034, (609) 667-4021.

**APRIL 27-29**  
**Maymont Garden Market**

Maymont Park, Richmond, Virginia. Information: Maymont Foundation Guild, 1700 Hampton St., Richmond, VA 23220, (804) 786-5916 or (804) 359-1170

**APRIL 28-29**  
**Pacific Rose Society 47th Annual Rose Show**

Los Angeles County Arboretum, 301 N. Baldwin Ave., Arcadia, California. Hours: Saturday 1 to 4:30 p.m.; Sunday 9 a.m. to 4:30 p.m. Admission: Adults \$1.50; Senior Citizens, children 5-17 and students with ID \$.75. Information: (213) 447-4513.

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## PALM SOCIETY

THE INTERNATIONAL PALM SOCIETY members receive the quarterly journal "Principes," and have access to a seed bank which distributes seeds of rare palms collected worldwide. Exciting 1984 Biennial meeting in San Francisco, followed by a tour of Australia. Membership \$15 per year. THE INTERNATIONAL PALM SOCIETY, Box 368, Lawrence, KS 66044.

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UNUSUAL ROCK and SHADE PLANTS, Hosta, Hemerocallis, Sempervivums, Shrubs, Iris, Native Americans, Seed, Dwarf Evergreens, Grapes. 24 Page Catalog. Please send 40¢ in stamps. ROCKNOLL NURSERY, 9210 U.S. 50, East, Hillsboro, OH 45133.

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## SEMINARS

Bulbs in the Residential Garden. Saturday, March 31, 1984, 9:30 a.m. to 3:30 p.m. This symposium, designed for the knowledgeable gardener, will explore the principles of using bulbs in the landscape. Topics • Using Bulbs in the Landscape. • Bulbs in the Garden Plan. • Specialized Uses of Bulbs: Perennial Beds, Naturalized Areas, Rock Gardens, Containerized Cut Flowers. Write or call: The Education Department, THE NEW YORK BOTANICAL GARDEN, Bronx, NY 10458, (212) 220-8747.

## SPRING SALE

RARE AND CHOICE PLANTS—Berry Botanic Garden spring sale, noon-4 p.m., April 14, WESTERN FORESTRY CENTER, Portland, Oregon, shrubs, perennials, natives, alpine. Information: (503) 656-1575.

## SUN ROSES

Sun Roses (Helianthemum) are evergreen, summer flowering, perennials for sunny locations and rocky soil. Hardy U.S.D.A. Zones: 6-9. Choose from H. 'Flame'—cerise, H. 'St. Mary's'—white, H. 'Pumpkin', H. 'Peach', or H. 'Double Apricot'. All well established in pots. \$2.10 each ppd., 3 of the same variety—\$6.00 ppd. or one each of the above \$9.75 ppd. Write for FREE listing. WRENWOOD, Rt 4, Box 361, Berkeley Springs, WV 25411.

## TETRAPLOID DAYLILIES

Over 450 hybrids; exotic new Tetraploid Introductions. Catalog \$1.00, deductible with order for plants. SEAWRIGHT GARDENS, 134 Indian Hill, Carlisle, MA 01741, (617) 369-2172. Visitors welcome!

## TREE LABELS

Custom-engraved outdoor 3-ply plastic labels available for trees & shrubs. Staked labels for perennials & vegetables. Prices range from \$3.00 to \$6.00, plus postage. Call for details (212) 566-0990 or write CENYC Tree Labels, 51 Chambers St., Rm. 228, New York, NY 10007.

## UNUSUAL INDOOR PLANTS

NEW! Color catalog, 1984-86—\$3.00, now lists 2,000 unusual Indoor Plants—Begonias, Exotics, Geraniums, Jasmynes, Herbs. LOGEE'S GREENHOUSES, AH, 55 North Street, Danielson, CT 06239.

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Buddleia Asiatica-Plants, cuttings or seed. Stevia-Piqueria Trineria-Plants, cuttings or seed. Tall French marigold-Seed. OR . . . Referral to possible sources. CARL FINCK, 559 Union Avenue, Middlesex, NJ 08846.

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PAINTED MEADOWS WILDFLOWER MIXTURE for eastern United States, now available to private homeowners. One pound will color 2,500 sq. ft. at one penny/sq. ft. Send for FREE brochure. PAINTED MEADOWS SEED CO., Box 1494, Dept. AH-3, Charlottesville, VA 22902.

Beautiful Gardens are easy with Wildflowers and Hardy Perennials. Husky field grown stock. FREE Catalog, filled with helpful cultural information. BOEHLKE'S WOODLAND GARDENS, W140 N10829 Country Aire Dept. A, Germantown, WI 53022.

# 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 "Plants Wanted," in care of the Society. Please type or print neatly. We will publish them on a space-available basis after checking for retail sources through our catalogue file.

- ***Betula costata***, a very hardy birch native to northeast Asia that has light tan exfoliating bark. ***Euonymus bungeana*** 'Pendula', weeping winterberry euonymus. Dr. Dale E. Herman, Department of Horticulture and Forestry, North Dakota State University, Fargo, ND 58105.
- ***Argemone polyanthemus*** (formerly *A. intermedia*), prickly poppy, a prairie perennial of the poppy family. ***Erythronium montanum***, a white-flowered trout lily or dog-tooth violet native to the western states. Douglas Le Roy Joslin, 102 Christopher Street, New York, NY 10014.
- ***Akebia trifoliata***, three-leaf akebia, a hardy, twining shrub with coarsely toothed leaves and native to Japan and China. John C. Baggenstos, 2209 NW Everett #402, Portland, OR 97210.
- ***Rosa laevigata*** 'Alba', Cherokee rose, an evergreen, climbing rose with single white flowers. Sara Hunt, 3017 Sierra Blvd., Sacramento, CA 95825.
- ***Caragana jubata***, shag-spine pea shrub, a small shrub native to central Asia with white or rosy, one-inch flowers. ***Populus alba*** 'Pendula', a pendulous cultivar of silver-leaved poplar. William Randall, Dickey, ND 58431.
- ***Vitex agnus-castus*** 'Alba', a white-flowered cultivar of chaste tree. Paul L. Russell, Box 765, Paris, TN 38242.
- ***Abies chensiensis***, Chinese fir, a beautiful and rare fir species from western and central China. Glenn

Spevacek, 1280 Marian Lane, Green Bay, WI 54304.

- ***Camellia sinensis*** (formerly *Thea sinensis*), Lapsang variety, the tea plant used to make Lapsang tea. J. Lucas, Lincoln 66, Holbrook, NY 11741.
- ***Salix cinerea*** 'Variegata' (also listed as var. *tricolor*), a shrubby willow with green, yellow, white and pink variegation on the leaves. ***Schizophragma hydrangeoides***, Japanese hydrangea vine, a clinging vine that is often mistaken for *Hydrangea anomala* var. *petiolaris*. However, the white, sterile flowers of this species have only one showy calyx lobe, instead of four. ***Echioides longiflorum*** (sometimes sold as *Arnebia echioides* or *Macrotomia echinoides*), prophet flower, a May-blooming, 18-inch perennial with yellow flowers, each of which has five purple spots that fade as the blooms mature. ***Anthemis tinctoria*** 'Golden Dawn', a double-flowered cultivar of golden marguerite. Keyth J. Hackimer, Wrenwood Orchids and Nurseries, Inc., Route 4, Box 361, Berkeley Springs, WV 25411.
- ***Passiflora alata***, a passion-flower with fragrant, four- to five-inch flowers that are white on the outside and carmine-crimson inside. Corona is variegated red, purple and white. Richard Bayley, 408 Hillcrest, Berrien Springs, MI 49103.

## Improve Spinach Germination

You can improve the germination of your spinach seeds by treating them in a 75 percent solution of commercial bleach for 10 minutes before sowing.

Scientists have discovered that as spinach seeds absorb water, they develop a mucilaginous coating that attracts fungi capable of killing the seed or seedling; soaking the seeds in a bleach solution has been found to prevent this condition.

—*Pacific Horticulture*, Winter 1983

## Horticultural Explorations



Springtime offers horticultural delights to American Horticultural Society members and friends on these exclusively designed trips. The arrangements are high quality, with first-class hotels and most meals and tips included. Local horticulturists will accompany you on visits to public and private gardens as well as diverse nurseries.

### SWITZERLAND (June 5-18)

Visit public botanical gardens, interesting private gardens, and the famous castle and gardens of the Mainau Island in Lake Constance. The picturesque lake country of northern Italy, spectacular Alpine scenery, and delicious chocolate factories are all part of this tour.

### JAPAN CRUISE (July 19-

August 7) See a different view of Japan. Fly to bustling Tokyo, then board our Pearl of Scandinavia (Norwegian registry) to travel from the subtropical island of Kyushu to the northern island of Hokkaido. Visits to the vast national parks and the temple gardens of Kyoto are also scheduled.

### AUTUMN IN THE ORIENT

(November 1-21) Visit private homes and gardens in Japan, as well as selected nurseries, public botanical and temple gardens, Mount Fuji and Nikko National Park. Enjoy a ride on the famous Bullet Train. We will also travel to the garden city of Singapore, famous for its orchids, and see the cultural attractions of Kyoto, Tokyo and Hong Kong.

For any of these programs, please write for your free brochure to the Education Department, American Horticultural Society, Mount Vernon, VA 22121. Or telephone (703) 768-5700.

# More New Plants for Gardeners

Among the many new and interesting plants available this spring are an attractive series of geraniums, a shatterproof double geranium, a dwarf double French marigold, a pink seedless table grape, a high-yielding white wine-grape, and an apple cultivar that is disease resistant.

Seed geraniums of the 'Hollywood' series, introduced by Denholm Seeds, are naturally compact and early flowering. All three cultivars offer a colorful display all summer long: 'Hollywood Red' has bright scarlet petals and well-zoned leaves; 'Hollywood Salmon' has deep salmon petals with heavily zoned foliage; and 'Hollywood Star' is unique for its rose-white, bi-colored petals. Seed for the 'Hollywood' series should be available from most mail-order seed houses. In addition, greenhouses, garden centers and nurseries should have plants in stock.

'Steady Red' geranium, a Stokes Seeds introduction, is shatterproof, thus eliminating the problem of petal drop in doubles. This colorful hybrid has heavily zoned leaves and fully double blooms that are bright red.

'Scarlet Sophia' dwarf double French marigold is another exciting new plant from Stokes Seeds. An All-America Selections winner, 'Scarlet Sophia' is a red version of 'Queen Sophia'. Both 'Steady Red' and 'Queen Sophia' are listed in Stokes'



Geranium 'Hollywood Star'

catalogue, which is available free on request from Stokes Seeds, 2154 Stokes Building, Buffalo, NY 14240.

'Reliance' is a new, pink seedless table grape with a sugary-sweet taste and a delicate aroma. The medium-sized, round fruit is borne in medium to large, well-filled clusters. Developed by the Arkansas Agricultural Experiment Station, this grape has proven winter hardy to temperatures of -34° F and moderately resistant to black rot, anthracnose, powdery mildew and downy mildew.

'Reliance' is available from Kelly Brothers Nurseries, Inc., 744 Maple St., Danville, NY 14437. Their catalogue is free.

Two new fruit cultivars are now available from the New York State

Fruit Testing Association in Geneva, New York. 'Horizon' is a high-yielding white wine grape that produces a neutral blending wine. This sister seedling of 'Cayuga White' is winter hardy in the northeastern United States and has few cultural defects. 'Freedom' is a new disease-resistant apple that has been grown in Geneva without any disease-controlling sprays for 23 years. It is highly resistant to apple scab, powdery mildew, cedar apple rust and fire blight. Its attractive fruit is tender and juicy.

Both of these cultivars are available from the New York State Fruit Testing Cooperative Association, Inc., Geneva, NY 14456. Please send a donation with your request to help defray the cost of their catalogue.

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