

AMERICAN HORTICULTURIST

NEWS EDITION—NOVEMBER 1983

Summer Interns: Poison Ivy, Pokeweed and New Knowledge

Most AHS members have heard of AHS's Summer Internship Project at our River Farm headquarters. In fact, many members made contributions to the Project this spring, enabling the Society's Director of Buildings and Grounds, Steven Davis, to hire five college students who are planning careers in horticulture.

"Their help is essential," Steve said at the September conclusion of the 1983 Project. "This year's Interns were particularly helpful. I'm sure that they learned a great deal, too."

Interns share all the grounds maintenance tasks on the 25-acre River Farm estate. They also spend some time working on special projects. This year they helped clear a wooded area for the Society's long-planned Woodland Walk. Each Intern had his turn caring for the Society's 450 rose bushes, coming in at dawn to water during a prolonged dry spell and, of course, weeding. Tim Sams, a student at Old Dominion University in Norfolk, Virginia, says he dreaded the thought of hours of weeding when he first started working at River Farm. "But now I get into it," he said recently. "I'm not passionate about it or anything, but it *is* interesting."

Tim spent much of his time replenishing and refurbishing the Ideas Garden's perennial borders. To him, this was the most interesting part of the Internship. "It's like architecture, reconstructing the borders when they're messed up, or putting in new plants."

Aaron Danielson, who studies at North Park College in Chicago, gave up a high-paying job with a moving company to work at River Farm this summer. Though he needs the



Summer Interns Mike Wild, Tim Sams, Brian K. Davis, Aaron Danielson (left to right) and John McDonald (not pictured) shared all the grounds maintenance tasks on the Society's 25-acre River Farm estate, including weeding, watering and planting.

higher wages to help cover college expenses, Aaron could not resist the opportunity to work at River Farm. "I've loved plants since I was in fourth grade," Aaron said. That love of plants made the decision about summer jobs easy for him.

Aaron is particularly interested in plant propagation and put in a bed at home with roses started from cuttings. He was even trying his hand at rooting boxwood, a challenge even to an experienced gardener.

Like his fellow Interns, Aaron jokingly told me his favorite part of the Internship was learning to identify

poison ivy and gaining an intimate knowledge of *Phytolacca americana* (pokeweed). Interns got acquainted with poison ivy and pokeweed working in River Farm's wildflower meadow. Although the meadow saves the Society many man-hours because it does not require mowing, it must be cleaned out each season. Interns have hauled away great loads of undesirable plants, working at the peak of August's heat and humidity.

For John McDonald, the meadow was the capstone of his AHS experience. John will graduate from Vir-

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River Farm Notes

Although fall is a season filled with beauty, the mere thought of winter's icy breath on our necks can often subdue our planter's instincts. We "forget" all that must be done to prepare our gardens for a long winter's sleep: plants and beds must be "winterized"; nonhardy favorites must be removed from the earth to the protection of cold frames, the kitchen windowsill or the greenhouse; and spring's spectacular display must be planned and prepared.

Of all these tasks, I find preparing for spring the most enjoyable. The bulbs we put into the ground today will reward our efforts a thousand times over when they awaken from their winter's respite—that is, if we give them everything they need to keep them happy! Some basics should be kept in mind each year when preparing for the tasks at hand, including when to plant, bulb depth, soil preparation and fertilizing.

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When to plant: Check with your local Extension Agent for recommendations in your area. The bulbs we plant in the fall here at River Farm are all considered hardy, but they must be planted early enough to ensure that their root systems will develop properly before ground temperatures sink too low. There is another side to this coin, however; if planted too early, some bulbs will expend vital energy producing fall vegetation, which will uselessly die back just as soon as colder temperatures arrive.

Here in the Washington, D.C. area we adhere to the following schedule. In September through October we plant trout lilies, hyacinths, glory-of-the-snow and daffodils. Also starting in September, but extending to as late as November, we plant wood hyacinths, snowdrops, Siberian squill, lilies and grape hyacinths. Beginning in September, but continuing through November, we plant crocuses. Our tulips go into the ground in October through December, and the Dutch irises only in the months of November and December.

Bulb Depth: Depth is very important. Shallowly planted bulbs may receive winter damage or may not be able to support heavy spring top-growth. Deeply planted bulbs may not have the strength to reach the surface in the spring. As a general rule, the distance from the top of the bulb to the surface of the soil should be three times the diameter of the bulb.

Anemones like shallow planting; a depth of from two to three inches is fine. Soaking the tuberous rhizomes overnight in water is helpful, especially since it makes the tops of the "bulbs" a little easier to identify. Generally, the top is bumpy and rough, and the bottom is convex and smoother. If in doubt about which end is up, plant anemones on their sides, and they will be perfectly happy.

The planting depths we use for some of the more common bulbs are varied. Winter aconites prefer shallow planting, two to three inches from the top of the bulb to the soil surface. Three inches is a good depth for glory-of-the-snow, checkered lily (*Fritillaria* sp.), grape hyacinths, Siberian squill, snowflakes

(*Leucojum* sp.), snowdrops and trout lily (*Erythronium* sp.). Crocuses can go a bit deeper, three to four inches, while flowering onions (*Allium* sp.) prefer a three- to six-inch depth, depending on the size of the bulb. Four to five inches is quite satisfactory for crown-imperial (*Fritillaria imperialis*). Both tulips and Dutch iris like between four and six inches of soil over their heads, and *Camassia* prefers a nice, even five inches. Six inches will do for daffodils and hyacinths, while lilies are happy with six to eight inches overhead.

The distance between bulbs should be twice their planting depth.

Soil Preparation: Few bulbs like wet feet, so drainage is an important factor. Good soil consistency and lightness not only promote drainage, but also aid root growth and aeration. To ensure richness, try forking in several inches of peat moss or compost each year before planting. Remember, even a top quality bulb will not respond favorably to poor soil.

Fertilizer: Even bulbs get hungry, so nourish them annually. We generally blend in (thoroughly) about five pounds of bone meal per 10-by-10 foot plot.

Take the time to prepare for spring now—you'll be happy you did!

—Steve Davis

New Board Members Elected

The Society elected nine new directors to serve on its board at the 38th Annual Meeting in Philadelphia. Seven are incumbents and two are new members.

The incumbents include Dr. Gerald S. Barad, Mr. J. Lyle Bayless, Jr., Mr. Everett Conklin, Mr. Jackson R. Eddy, Mr. Richard J. Hutton, Dr. Julia Rappaport and Mrs. Harry J. Van de Kamp.

The new board members are Mr. Richard C. Angino, a senior partner in the Harrisburg, Pennsylvania law firm of Angino & Rovner, and Mrs. John M. Maury, former Secretary and Second Vice President of the American Horticultural Society.

Summer Interns

Continued from page 1

ginia Polytechnic Institute with a degree in horticulture on December 16 and hopes to own his own landscaping company someday. "The meadow particularly interests me," John said. "I look out my apartment window at VPI and see acres and acres of hilly areas with people pushing lawn mowers. What would it take to convince them to put in a meadow here and there? We need to develop more meadow plants and encourage people to use meadows, if only to save on maintenance."

While at AHS this summer, John attended a one-day session of a Washington, D.C. meeting of the American Association of Botanic Gardens and Arboreta, where he enjoyed a lecture on the use of ornamental grasses in landscaping. John says his love of plants is in his blood. "My grandparents were farmers," he told me, "but I wish I had been exposed to plants more as a child. I really like the idea of the Society's Children's Garden."

John agreed with his coworkers that the Internships provided a great deal of hard work. But in spite of *Phytolacca americana*, fighting swarms of yellow jackets and coming to work at 6:00 a.m. to water a parched landscape, the Interns say the



TOP LEFT: Tim Sams, a student at Old Dominion University, has worked two summers as an AHS Intern. TOP RIGHT: Intern Aaron Danielson gave up a high-paying summer job to work at River Farm. ABOVE: Brian K. Davis learned how to divide irises during his Summer Internship.

summer was definitely worthwhile.

Tim, Aaron and John, along with Interns Mike Wild and Brian K. Davis, made the most of the opportunities this summer's Internship offered. They join the Society's staff in thanking AHS members for providing the funds for the 1983 Project. If you would like more information about the Internship Project, or if you wish to make a contribution to the 1984 program, please write to Steve Davis at River Farm.

—Connie Clark

Don't Miss Our Spring Symposium

The American Horticultural Society's Sixth Annual Spring Symposium is just around the corner. Make plans now to join us in Miami, Florida from March 14 to 17, 1984.

This year's theme is Frontiers of Horticulture. The program will feature visits to public and private gardens in the South Florida area, including Fairchild Tropical Garden, Vizcaya and The Kampong, an AHS Board member's garden along the shores of Biscayne Bay that once belonged to plant collector David Fairchild. Education sessions will focus on the culture of tropical plants used in landscaping and interior-scaping. Symposium activities will center around the Fairchild Tropical Garden and the Omni Hotel in

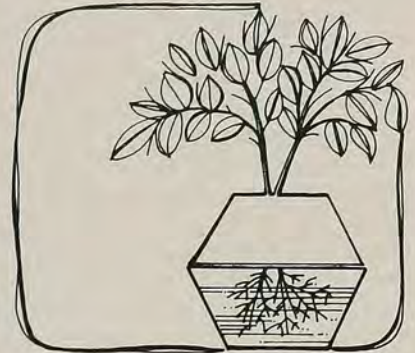
Miami. Look for registration information in the January issue of *American Horticulturist* news, or write or call the Society's Education Department for more information.

Car Rental Discount

Any AHS member in good standing can receive a 15 percent discount on auto rental charges from Hertz simply by presenting a special discount sticker at the Hertz counter. We will be including these stickers in the first membership renewal notice you receive, but if you need a sticker before you're due for renewal, please write or call Sharon Barnes at the Society. She will be glad to send a sticker along.

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Society Announces 1983 Award Winners

AHS President Edward N. Dane announced the 1983 American Horticultural Society award winners Saturday, September 17 at the Society's 38th Annual Meeting in Philadelphia, Pennsylvania.

The Liberty Hyde Bailey Medal, the highest honor the American Horticultural Society can bestow upon an individual, was awarded to **Everitt L. Miller**. Mr. Miller has devoted almost 40 years to his interest in promoting horticulture in America and has always been willing to contribute his time and knowledge to the many organizations with which he has been associated. In addition to his service on the Board of Directors of the American Horticultural Society, he has also served on the boards of the American Camellia Society, the American Association of Botanical Gardens and Arboreta, the Administrative Management Society and the American Rhododendron Society.

Before Mr. Miller came to Longwood Gardens, he served for over 10 years as the manager of the W. R. Coe estate "Planting Fields," now an arboretum administered by the State University of New York. In 1956 he came to Longwood Gardens to head their Department of Horticulture. He was promoted to Assistant Director in 1963 and was made Director of the Gardens on September 1, 1979.

In addition to his administrative contributions to horticulture, Mr. Miller has written many articles of interest to both professional and amateur horticulturists. He also serves as an accredited horticultural judge at numerous flower shows in this country and abroad.

Gardens for All, the National Association for Gardening, was this year's recipient of the G. B. Gunlogson Medal, awarded each year to an organization or individual whose creative use of new technology has made gardening easier and more enjoyable for all. Since 1973, *Gardens for All* has promoted not only community gardening, but also gardening for children, senior citizens and the handicapped—in short, gardening for anyone who can reap its benefits. Their monthly news maga-



Everitt L. Miller



Elisabeth Carey Miller



R. Henry Norweb, Jr.



William L. Ackerman



Viola K. Anders



J. Liddon Pennock, Jr.

zine, *Gardens for All*, presents a vast amount of information that not only helps individuals organize group gardens, but also helps them tend their gardens efficiently and more successfully.

New products and technology have played an important role in this effort to make home gardening more productive and interesting. Examples of the new technologies this organization has introduced include the Paperpot Seedling System for plant propagation; the GFA Tunnel Gardening System for season extending; GFA Home Orchard Pest Control Kits; the GFA Organic Insect Control System, a complete package of organic insect control measures; and the GFA Cover Crop Kit, which simplifies the use of green manures for home gardeners.

The Amateur Citation was awarded to **Elisabeth Carey "Betty" Miller** for her significant contributions to horticulture, especially in the northwestern part of this country. One of the founders of the Northwest Ornamental Horticulture Society, Mrs. Miller was instrumental in raising funds for the Lake Washington Ship Canal, now a popular Seattle attraction. In addition to serving as horticultural consultant

for the internationally famous Seattle Freeway Park, she has worked to promote traffic island beautification and restrictive billboard legislation.

Her contributions to the advancement of amateur and professional horticulture include membership on governing boards, on local, state and national committees and on judging councils. Her organizational affiliations, past and present, include The Arbor Fund, Pacific Science Center Foundation, Rhododendron Species Foundation, the American Horticultural Society and the University of Washington Arboretum. A recent gift in her name will help build the first horticulture library in the Northwest. It will be a part of the new Center for Urban Horticulture on the University of Washington Campus.

This year the Commercial Citation was presented to **Robert F. Lederer**, an individual who has been the guiding force for the American Association of Nurserymen. A tireless worker who has devoted himself to improving the state of the nursery industry in this country, Mr. Lederer has also promoted horticulture through a variety of different projects. He worked with Mrs. Lyndon B. Johnson in the Society for a More

Beautiful Capital and was a driving force in creating the Washington Youth Gardens Council, which involves city children in gardening. In addition, he developed the AAN's Landscape Awards Program, which promotes high standards in landscaping and community improvement throughout the country.

Mr. Lederer currently is Executive Vice President of the American Association of Nurserymen and serves as Chairman of the Advisory Council for the United States National Arboretum. He is also working with Mrs. Johnson to establish a National Wildflower Research Center, which will stimulate, underwrite and carry out research on the propagation, cultivation, conservation and preservation of wildflowers.

Judy Powell was awarded the Horticultural Writing Citation for her enormous contributions to horticultural writing during her four years with the Society. Her editorial guidance and support to the many contributors to *American Horticulturist* as the Society's Publications Director was invaluable. In addition to her work with the Society's magazine and newsletter, she supervised production of our well-received directory, *North American Horticulture, A Reference Guide*, and the many brochures the Society produces each year.

The results of her campaign to improve the editorial quality of the Society's publications have been recognized by all. Not only did she improve the writing and editorial content of *American Horticulturist*, but she also helped turn our magazine and newsletter into beautiful and useful publications that are read and enjoyed by professional and amateur gardeners and horticulturists throughout the country.

The Landscape Architecture Citation this year went to **Daniel Urban Kiley**, architect and landscape architect, whose artistry produces a superior blend of landscape design and horticulture. Mr. Kiley opened his own firm in 1940. He first achieved national recognition as a member of Eero Saarinen's prize-winning team in the Jefferson Memorial Competition in 1947. Since then he has received countless honors and awards. Some of his major commissions in

Washington, D.C. include the Lincoln Center, Washington Cathedral, Dulles International Airport, the National Gallery of Art and the Smithsonian Institution's South Court Victorian Garden. Currently, the Campeau-Criswell Project in Dallas is attracting much attention.

The Local Horticulture Citation recognizes an individual or group who has contributed to the improvement of horticulture in the host city for the Society's annual meeting. This year's recipients were **Mr. and Mrs. William H. Frederick, Jr.**

Mr. Frederick has practiced landscape architecture in Hockessin, Delaware since 1952. His firm, Private Gardens, Inc., specializes in residential garden design. He is dedicated to developing home environments that highlight the magic of color, texture and changing seasonal interest provided by the knowledgeable choreography of hardy plants from all over the world. Mr. Frederick is a member of the Board of Callaway Gardens and a trustee of Longwood Gardens. He is also the author of a book on planting design, *100 Great Garden Plants*.

His wife Nancy has been equally active. She currently serves as a volunteer guide, naturalist, teacher and exhibit-maker at the Delaware Nature Education Society in Ashland, Delaware. With Ann R. Daudon, she has developed and delivered an entertaining lecture-workshop entitled "Taxonomy for Cowards," which has been presented to many garden clubs and horticultural groups. In addition to these activities, Mrs. Frederick has served as a

board member of the Delaware Nature Education Society and the Eleutherian Mills-Hagley Foundation. She has also served on advisory committees for Winterthur Museum, the Delaware Foundation and Cason J. Callaway Memorial Forest, and is a member of the Garden Club of Wilmington.

R. Henry Norweb, Jr. was this year's winner of the Professional Citation. Since 1959 he has served as Vice President and Executive Director of the Holden Arboretum in Mentor, Ohio. He is a former director of the American Association of Botanical Gardens and Arboreta, and of the American Horticultural Society. In addition, he is a member of the Founding Committee and a former president of the Council on Botanical and Horticultural Libraries, and has served as a trustee of the Cleveland Museum of Natural History and the Mentor Marsh Preserve.

Mr. Norweb has also been active in the American Association of Museums, the Ohio Chapter of the International Society of Arboriculture, the International Society for Horticultural Science, and the Lake County Beautification Committee.

The Scientific Citation was presented to **William L. Ackerman**, who has spent 34 years working in the field of plant research. For 30 of those years, Dr. Ackerman has worked at the USDA's Agricultural Research Service. His plant breeding efforts have resulted in the introduction of 33 new cultivars—14 camellias, five hollies, 12 irises and two pears. In addition, Dr. Ackerman's

Liverpool Site of '84 Garden Festival

Gardeners planning to visit Great Britain next summer will not want to miss the International Garden Festival, which will take place in Liverpool from May 2 through October 14, 1984. The Festival, to be held on a 124-acre landscaped site, will feature a wide variety of theme gardens from participating countries, displays by botanical gardens and arboreta, exhibits by scientific and research institutions, as well as commercial exhibits from all over the world. Included will be a Victorian

garden, agricultural displays, butterfly gardens, gardens for the disabled, a planting of heathers and conifers, and gardens by commercial exhibitors. There will also be a large hall featuring a series of competitive indoor shows, with entries from all over the world.

For more information on the International Garden Festival, write International Garden Festival, Merseyside Development Corporation, Royal Liver Building, Pier Head, Liverpool L3 1JH, England.

research has yielded new breeding lines that promise to provide important genetic material for plant breeders for many years to come. These include 143 interspecific camellia hybrids, 15 iris hybrids and, perhaps most importantly, two intergeneric crosses between *Camellia* and *Franklinia*.

From 1959 until 1974, Dr. Ackerman served as the administrative and research head of the United States Plant Introduction Station at Glenn Dale, Maryland. Since that time he has been research leader of the Woody and Herbaceous Plant Breeding and Cytogenetics Program at the U.S. National Arboretum. Dr. Ackerman is recognized as the country's leading authority on camellia hybridization, and the importance of his research has been recognized internationally.

Viola K. Anders, who received the Teaching Citation, taught Herbaceous Plant Materials at the Pennsylvania School of Horticulture for Women for more than 20 years. She continued teaching for seven years after the school was absorbed by Temple University. During the course of her career, she inspired students not only with her knowledge of plants in the classroom, but also with her skills as a plantsman. She grew, designed and planted the large herbaceous beds and borders in the formal gardens of the Ambler Campus of Temple.

The Pennsylvania Horticultural Society awarded her their Certificate of Merit in recognition of her outstanding work as a teacher both in and out of the classroom. Temple University, in recognition of her work, made her an Assistant Professor of Horticulture.

The Meritorious Service Citation was awarded to **J. Liddon Pennock, Jr.**, whose talents within the field of horticulture are numerous and varied. His volunteer service with the Pennsylvania Horticulture Society, the Philadelphia Flower Show and the National Herb Society is well known, as are his articles about his beautiful gardens at Meadowbrook Farm. Mr. Pennock is also a member of the Garden Club of America, serves as an advisor to Longwood and Ladew Topiary Gardens, and is a board member of the Morris Arboretum.

GARDENER'S DATELINE



This model of mountain rosebay (*Rhododendron catawbiense*) is one of over 300 botanical models on display at Chicago's Field Museum of Natural History in its exhibit "Plants of the World," which reopened September 24. The exhibition, the largest of its kind in the world, offers a three-dimensional look at all major forms of plant life, from the simplest to the most complex. For more information about the exhibit, write or call the Field Museum of Natural History, Roosevelt Road at Lake Shore Drive, Chicago, IL 60605, (312) 922-9410.

NOVEMBER 9-11
National Agricultural Career Show and 56th National Future Farmers of America Convention
 Kansas City, Missouri
 Information: National FFA Center, PO Box 15159, Alexandria, VA 22309

NOVEMBER 11-27
Kiku-Ka Ten, Japanese Chrysanthemum Festival
 Enid A. Haupt Conservatory, The New York Botanical Garden, Bronx, New York
 Hours: Tuesday through Saturday 10:00 a.m. to 5:00 p.m.; Sunday 10:00 a.m. to 7:00 p.m.
 Admission: \$2.50 for adults, \$.75 for children
 Information: The New York Botanical Garden, Bronx, NY 10458, (212) 220-8700

NOVEMBER 12
American Plant Life Society Amaryllidaceae Symposium
 Los Angeles State and County Arboretum, Arcadia, California
 Information: Kenneth Mann, Symposium Secretary, 2195 E. Orange Grove, Pasadena, CA 91104, (213) 797-7134

NOVEMBER 13-15
Landscape Management Conference,

Associated Landscape Contractors of America
 Denver, Colorado
 Information: Associated Landscape Contractors of America, 1750 Old Meadow Road, McLean, VA 22102, (703) 821-8611

NOVEMBER 17-19
Arbor Age's First Annual Conference and Exhibition for the Tree Care Industry
 Philadelphia Civic Center, Philadelphia, Pennsylvania
 Information: Arbor Expo '83, Conference Management Corporation, 17 Washington Street, Box 4990, Norwalk, CT 06856, (203) 852-0500

NOVEMBER 27-DECEMBER 1
National 4-H Congress
 Conrad Hilton Hotel, Chicago, Illinois
 Information: Andrea Burney, Print Media Coordinator, National 4-H Council, 7100 Connecticut Avenue, Chevy Chase, MD 20815

NOVEMBER 28-DECEMBER 2
Entomological Society of America National Conference
 Detroit, Michigan
 Information: Entomological Society of America, 4603 Calvert Road, College Park, MD 20740

Special Events Mailing List Started

Members who would like to be added to the Society's Special Events mailing list are invited to send their name and address to Carolyn Hottle in care of the Society's Education Department. Brochures for the Society's major meetings, such as the Spring Symposium and the Fall Annual Meeting, will be printed in the

newsletter. Members who are on the Special Events mailing list will receive an additional brochure, mailed before the program appears in the newsletter. This new list and mailing schedule will help members who attend the meetings take advantage of discount rates for registration and hotel reservations.

Upcoming AHS Events

The following Society-sponsored tours and other events have been scheduled for this fall. For more information about any of these events, write or call the Society's Education Department.

March 7-20

AHS Spring tour of Israel. Tour the historic and horticultural sights of Jerusalem and the Dead Sea, Nazareth, Dome of the Rock and the Wailing Wall.

March 14-17

AHS Spring Symposium in Miami, Florida. See page 3 of this newsletter for details.

March 18-26

AHS Post-Symposium Tour of Flori-

da's west coast, the Everglades and EPCOT. Visits to Selby Botanic Gardens, Edison Gardens, the Ringling Mansion and Cypress Gardens are also scheduled.

March 23-30

AHS Spring in the South tour, including visits to private homes in New Orleans, a ride up the Mississippi on the Delta Queen and tours of private homes in Natchez, Mississippi, which are only open once a year.

May 22-June 4

AHS cruise to Morocco, and the Canary and Madeira Islands aboard the yacht Argonaut. An optional London Prelude, which includes a visit to the Chelsea Flower Show, will depart May 21.

Free Slide Shows Available

Garden clubs and civic groups looking for meeting program ideas may want to borrow one or both of the slide programs available free of charge from the George J. Ball Company, a wholesale horticultural breeder and supplier.

"A Garden For All Seasons," which lasts about one hour, showcases over 60 hybrid flowers and provides useful advice on designing and arranging flower gardens.

"Fresh Is Best," which takes about a half hour to present, includes 23 of the most popular fruit and vegetable cultivars, and provides many useful cultural hints and suggestions.

Both presentations are available

on loan from George J. Ball, Inc., and are sent in plastic slide pages with an accompanying script. For more information on the shows, write or call Betty Norris, Geo. J. Ball, Inc., P.O. Box 335, West Chicago, IL 60185, (312) 231-3500.

Erratum

In the August, 1983 issue of *American Horticulturist* an error occurred in Margaret Hensel's Design Page, "Water." The pond pictured on page 39 is located at Exbury Gardens, not Wakehurst Place.

HORTICULTURAL EXPLORATIONS



The Dead Sea—Israel

All members of the American Horticultural Society are eligible to participate in these exclusively designed explorations. The arrangements are high-quality, with first-class hotels, most meals and tips included. Besides public and private gardens, visits to diversified nurseries are included.

ISRAEL (March 7-20) This itinerary is truly unique—visits to some of this country's famous nurseries, the unusual Biblical garden of Neot Kedumim and the fine public gardens in Jerusalem are planned. Other sights include the beautiful Sea of Galilee, where we will stay overnight on a kibbutz, the salty Dead Sea and Israel's historical highlights such as Nazareth, the "Via Dolorosa," Dome of the Rock and the Wailing Wall. Escorted by Dr. Gilbert Daniels, the Society's Immediate Past President.

FLORIDA (March 18-26) After the Spring Symposium in Miami, visit Florida's west coast—Corkscrew Swamp, Selby Botanic Gardens, Edison Gardens, the Ringling Mansion and Gardens, and Cypress Gardens. A behind-the-scenes horticultural tour of EPCOT and DisneyWorld as well as nurseries in the Apopka area are scheduled. The natural beauty of the Everglades combined with man made gardens and personal views of the bounty of Florida horticulture promise to make this a fascinating experience for all.

SPRING IN THE SOUTH (March 23-30) Spring's blaze of azaleas will find us in New Orleans, where we will tour private homes and gardens. A trip up the Mississippi River on the steamboat Delta Queen (U.S. registry) will take us past the famous plantations along the river such as Houmas House. A stop in Natchez for the annual Pilgrimage to see the homes and gardens, which are open to the public just once a year, will top off this exciting trip.

For any of these programs, please write for your free brochure to the Education Department, American Horticultural Society, Box 0105, Mt. Vernon, VA 22121, or telephone 1-703-768-5700.

Brooklyn's Rooftop Gardens

A project designed to make agricultural use of New York City's rooftops has been undertaken by the Brooklyn Union Gas Company and the Brooklyn Botanic Garden, in conjunction with The America-Israel Friendship League and Consumer Action Now. The project, under way at five different sites, is testing an adaptation of the Israeli farming technique called "tuboponics." Tuboponics is a space-saving variation of hydroponics, a technique by which plants are generally grown without soil and are fed nutrients through water.

The tuboponics process has proven both efficient and inexpensive. Plants are started from seeds in Horticultubes placed in a nutrient solution, then transplanted in tubes filled with a mixture of four parts perlite to one part peat moss. Tubes, usually white polyvinyl chloride, are easily obtainable from any plumbing supply store. Watering is done by hand or by means of an overhead drip system.

In general, for each square foot of floor space, five layers of plants can be grown. Under optimum conditions "tar beach gardeners" can expect a yield 25 to 30 times higher



Alan Smith, an Assistant Vice President for The Brooklyn Union Gas Co., examines tomatoes grown tuboponically on the rooftop of Brooklyn Union's headquarters.

per square foot than traditional soil gardeners.

According to Brooklyn Union's Assistant Vice President Alan Smith, the project was begun in an effort to alleviate the rising food—and associated transportation and energy—costs faced by urban dwellers with no access to conventional garden plots.

"I read stories where the elderly in our area were eating pet food," Smith said. "At that point, I felt we should at least give it a try."

Project sites include Brooklyn Union's rooftop in addition to a senior citizens center, a day-care center and the Magnolia Tree Earth Center. Each of the gardens is monitored by a horticulturist from the Brooklyn Botanic Garden, the fifth site for a project garden.

Tuboponics is part of a general trend toward increased urban farming, which, according to the Department of Agriculture, grew 259 percent nationally last year.

For more information on tuboponics, write to Brooklyn Union Gas, Corporate Communications, 195 Montague St., Brooklyn, NY 11201.

New Endangered Species Directory

Over 250 federal, state, territorial, and private conservation or conservation-related organizations are listed in the fifth edition of the *Liaison Conservation Directory for Endangered and Threatened Species*, recently published by the U. S. Government Printing Office.

Compiled to aid in the implementation of the U. S. Fish and Wildlife Service Endangered Species Program, the Directory includes names of designated staff members who serve as liaisons with the Office of Endangered Species.

Copies of the Directory may be obtained for \$5.00 from the U. S. Government Printing Office, Washington, DC 20402. (Include Stock #024-010-00642-1 with order.)

Orchid Papers Published

Gardeners with a serious interest in terrestrial orchids should consider ordering *North American Terrestrial Orchids: Symposium II Proceedings and Lectures*, a 143-page compilation of the scientific papers and lectures presented at the Mid-America Orchid Congress Symposium, held in October, 1981 in Southfield, Michigan. Topics cover a broad range, including "Hardy Orchids—Horticultural Seed Germination and Commercial Potential," "Studies on the Fragrances of North American Terrestrial Orchids" and "Mexican Terrestrial Orchids." Numerous maps, charts and graphs support the authors' findings, and many color photographs are provided.

Copies of this softcover book may be obtained directly from the Michigan Orchid Society, c/o Raymond McCullough, 14800 Harrison, Li-

von, MI 48154. Send check or money order for \$17.95 per copy, made out to the Michigan Orchid Society. (Michigan residents add 4 percent sales tax.)

Rose Disease Handbook Published

Serious rose fanciers will want to purchase the new publication of the American Phytopathological Society, *Compendium of Rose Diseases*.

Designed primarily to aid in the diagnosis of rose diseases, this 50-page softcover book is a useful resource for rose growers, students and researchers alike. Diseases are divided into two main categories: infectious, caused by fungi, bacteria, viruses and nematodes; and noninfectious, including physiologic problems, environmental imbalances, air

pollution, pesticide toxicity, nutritional deficiencies and nutritional toxicities. A glossary and index are included for handy reference, and ample illustrations (including 83 color photographs) are provided throughout.

The *Compendium of Rose Diseases*, which retails for \$15, is available from the Society at a special discount price of \$13.50, including postage and handling. To order a copy write Deborah Harpster in care of the Society.

Two New Newsletters Published

Advanced and beginning flower arrangers will want to subscribe to a new quarterly newsletter published by well-known lecturer, teacher, writer and floral arranger Sunny O'Neil.

The newsletter will contain interviews with floral designers, caterers and embassy representatives, who will provide tips and tell how they use flowers when they entertain. It will also include book reviews, a calendar of events, activities for chil-

dren, information on new products, party ideas and specific step-by-step directions for arrangements.

Sunny O'Neil's articles have appeared in *Better Homes and Gardens*, *House and Garden*, *Modern Maturity* and *Woman's Day*. She is also the author of a book, *The Gift of Christmas Past*.

A one-year subscription to the quarterly newsletter, entitled *Sunny O'Neil's Flowerletter*, costs \$10. For more information write Sunny

O'Neil's Flowerletter, P.O. Box 137, Glen Echo, MD 20812.

A new newsletter is available for individuals who operate businesses based on herbs and herbal products. Entitled *The Business of Herbs*, the newsletter is issued six times per year and includes articles on marketing, production and other topics of interest to operators of both small and large businesses. A one-year subscription costs \$15.00.

For more information write the *Business of Herbs*, P.O. Box 559, Madison, VA 22727.

New Books for Gardeners

Many gardening books have appeared in the last year or two that are worthy of readers' attention. Unfortunately, we haven't been able to review them all. Here's a selected list of books that gardeners won't want to miss:

- **CLIMBING ROSES, OLD AND NEW.**

Graham Stuart Thomas. J. M. Dent & Sons Ltd. London, England. 1983; 203 pages; hardcover, \$21.95. AHS discount price, \$19.10 including postage and handling. A new edition of a standard reference.

- **THE NEW WILDFLOWERS AND HOW TO GROW THEM.**

Edwin F. Steffek. Timber Press. Portland, Oregon, 1983. 186 pages; softcover, \$22.95. AHS discount price, \$21.00 including postage and handling.

Another old favorite in a new edition.

- **PLANT PROPAGATION FOR THE AMATEUR GARDENER.**

John I. Wright. Blandford Press. Poole, England. 1983. 216 pages; hardcover, \$16.95. AHS discount price, \$14.80 including postage and handling.

Specific instructions for many different plants.

- **THE DOBIER BOOK OF GREENHOUSES.**

Arthur Hellyer. William Heinemann Ltd. London, England. 1981. 150 pages; softcover, \$12.50. AHS discount price, \$11.50 including postage and handling.

A good beginner's book now available in the United States.

- **THE BOUNTIFUL SOLAR GREENHOUSE.**

Shane Smith. John Muir Publications. Santa Fe, New Mexico. 1982. 221 pages; softcover, \$8.00. AHS discount price, \$7.40 including postage and handling.

Vegetable gardening under glass.

- **SCIENTIFIC GREENHOUSE GARDENING.**

P. K. Willmott. E. P. Publishing Ltd. England. 1982. 202 pages; hardcover, \$17.95. AHS discount price, \$15.60 including postage and handling.

Good explanations for the serious gardener.

Three by Thalassa Cruso:

- **THE GARDENING YEAR.**

145 pages; \$10.95. AHS discount price, \$9.94 including postage and handling.

- **MAKING THINGS GROW OUTDOORS.**

360 pages; \$10.25. AHS discount price, \$10.20 including postage and handling.

- **MAKING THINGS GROW INDOORS.**

268 pages; \$10.25. AHS discount price, \$10.20 including postage and handling.

All now available in paperback from Van Nostrand Reinhold.

- **POCKET FLORA OF THE REDWOOD FOREST.**

Rudolf W. Becking. Island Press. Covelo, California. 1982. 239 pages; softcover. \$15.00. AHS discount price, \$15.00 including postage. An excellent field guide to the area.

- **GARDENING IN THE SHADE.**

Harriet K. Morse. Timber Press. Portland, Oregon. 1982. 242 pages; softcover. \$12.95. AHS discount price, \$12.50 including postage. A new and revised edition of an old standard.

- **PACIFIC NORTHWEST GUIDE TO HOME GARDENING.**

Ray A. McNeilan and Micheline Ronninger. Timber Press. Portland, Oregon. 1982. 302

pages; softcover. \$19.95. AHS discount price, \$18.50 including postage and handling.

A good regional guide for fruits and vegetables.

- **THE EDUCATION OF A GARDENER.**

Russell Page. Random House. New York, New York. 1983. 383 pages; hardcover, \$19.95. AHS discount price, \$16.90 including postage and handling.

- **THREE GARDENS.**

Graham Stuart Thomas. Collingridge. Feltham, England. 1983. 189 pages; hardcover. \$29.95. AHS discount price, \$25.50 including postage and handling.

- **COUNTRY HOUSE GARDEN.**

David Hatchatt. David and Charles. North Pomfret, Vermont. 1983. 192 pages; hardcover, \$23.95. AHS discount price, \$20.70 including postage and handling.

Three Englishmen discuss the gardens they have designed.

- **CULPEPPER'S COLOR HERBAL.**

David Potterton (Editor). Sterling Publishing Co. New York, New York. 1983. 224 pages; softcover, \$12.95. AHS discount price, \$11.60 including postage and handling.

An up-to-date and nicely illustrated edition of a work first published in 1649.

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New Plants Listed as Threatened or Endangered

The U.S. Fish and Wildlife Service has proposed nine more plants to be added to the U.S. List of Endangered and Threatened Species. *Hedeoma diffusum*, Flagstaff pennyroyal, was proposed as Threatened, and *Eriogonum pelinophilum*, clay-loving wild-buckwheat, was proposed as Endangered with Critical Habitat. Seven species were proposed as Endangered: *Cowania subintegra*, Arizona cliffrose; *Frankenia johnstonii*, Johnston's frankenia; *Jatropha costaricensis*, quemador del Pacifico; *Sidalcea pedata*, pedate checker-mallow; *Thelypodium stenopetalum*, slender-petaled mustard; *Dyssodia tephroleuca*, ashy dogweed; and *Cereus robinii*, Key tree-cactus.

Hedeoma diffusum, commonly called Flagstaff pennyroyal, has been proposed as a Threatened Species because the plant's population and range are being reduced by habitat destruction. A native of northern Arizona and a member of the mint family, this plant is already restricted to 10 known sites around the Flagstaff area. If the population of Flagstaff continues to increase at the predicted rate, *Hedeoma diffusum*'s remaining habitat could easily be lost. Forest disturbance may also pose a threat to the population, as the plants grow on rock outcroppings within mature ponderosa pine communities.

According to the *Endangered Species Technical Bulletin*, "Critical Habitat has not been proposed at this time since the attractive plant is vulnerable to collection for rock gardens and is usable for herb tea. Publication of Critical Habitat maps would pinpoint the remaining populations, greatly increasing the threats to the plant."

Eriogonum pelinophilum, clay-loving wild-buckwheat, with only one known population, has been proposed for listing as an Endangered Species and for determination of its Critical Habitat. The 800 to 1,000 remaining plants are growing on a 100-acre site on private land in Delta County, Colorado and are under imminent threat. Land adjacent to the site has already been fenced off and used for horse corrals and grazing.

The *Bulletin* describes *Eriogonum pelinophilum* as "a low, rounded subshrub only 4 inches high and 4-8 inches wide that bears clusters of small white to cream flowers." Despite extensive field searches, no locations other than that in Delta County have been found for this unique species.

The Service has proposed to list as Endangered *Cowania subintegra*, Arizona cliffrose, an evergreen shrub with roselike yellow flowers. Only two populations—one in southeastern Mohave County, and the other in Graham County, Arizona—are known to exist. Both populations are subject to cattle grazing. In addition, the Mohave population is threatened by future mining and highway operations.

At present this species is not protected by any federal or state laws. Furthermore, it is difficult to enforce restrictions concerning the removal of such plants from federal lands. The Service has not proposed designation of Critical Habitat, as the habitat in this case is easily accessible to the public.

Cowania subintegra, found in shallow, gravelly loams over lime-

stone bedrock, has proven valuable in the study of Southwestern flora.

Frankenia johnstonii, Johnston's frankenia, has been proposed for listing as Endangered because its six known populations, all of which show low reproduction, are located on rangeland that is heavily grazed and in poor condition. According to the *Bulletin*, "any habitat change brought about by chaining or plowing could impact the species." Approximately 1,000 plants are known to exist within a 35-mile radius in two Texas counties. In addition, several hundred plants of this species exist in Nuevo Leon, Mexico.

Frankenia johnstonii is a perennial shrub that produces white-petaled flowers from September to May. Its most distinctive features are its blue-green color and wiry appearance.

In order to protect the plant from collectors and vandals, the Service has not proposed Critical Habitat.

Main threats to *Jatropha costaricensis*, commonly called quemador del Pacifico, include fire, trampling by livestock, and wood gathering. This plant, which has been proposed as Endangered and is a member of the spurge family, is also threatened

More Disease-Resistant Crab Apples

Plant pathologist Lester P. Nichols has conducted an annual survey of crab apples in the northeastern and midwestern states since 1961 in an attempt to locate species and cultivars that are disease resistant. His search for plants that are resistant to apple scab, fire blight, cedar-apple rust, powdery mildew and frog-eye leaf spot has led to the appearance of many more disease-resistant cultivars on the retail market today.

Nichols, who is Professor Emeritus of Plant Pathology Extension at the Pennsylvania State University, and plant pathologists from across the country have compiled a list of five cultivars that have been found to be free of all five diseases for a five-year period. In addition, these plants have attractive form, flowers and fruit. 'Autumn Glory', 'Donald' and 'Molten Lava' are new cultivars, patent applied for; 'Professor Sprenger' and *Malus sargentii* 'Tina' are

older cultivars that have been available for some time.

Many other fine crab apples are not found on this list because they are slightly or moderately susceptible to one or more of the five diseases. Some of these plants are more ornamental than the completely disease-resistant plants. Desirable cultivars that also exhibit good disease resistance include 'Adams'; *Malus baccata* var. *mandschurica* 'Centurion', 'Christmas Holly' and 'Callaway'; *Malus floribunda*; and *Malus sargentii* 'Sentinel'.

For a complete list of these recommended plants, along with an indication of their disease resistance, send a self-addressed, stamped, business-sized envelope to Assistants to the Editor, American Horticultural Society, P.O. Box 0105, Mount Vernon, VA 22121.

—*Plants and the Landscape*,
Summer 1983

by the negative genetic threats of small population size. The only population known to exist is located in a maritime tropical dry forest community in Costa Rica.

A shrub or small tree, *Jatropha costaricensis* has grey-colored leaves and inconspicuous male and female flowers on separate plants. The species, "a phytogeographically significant relic from drier climatic conditions in the past," is not protected under Costa Rican law. However, conservation measures will be authorized if the proposal becomes final.

Sidalcea pedata, pedate checker-mallow, and *Thelypodium stenopetalum*, or slender-petaled mustard, have both been proposed as Endangered. The remaining colonies in the Big Bear Basin of San Bernardino County, California are becoming smaller and more vulnerable as the alkaline meadows in which they are found are lost to land development and other manmade changes. Over 85 percent of meadowland has already been lost, and about 80 percent of the remaining land is now scheduled for further development.

The pedate checker-mallow, "a

multi-stemmed, perennial member of the mallow family," and the slender-petaled mustard, a "herbaceous short-lived perennial," are both in need of federal protection at this time. Despite their listing as Endangered in the state of California, the plants continue to be threatened in their natural habitat.

Dyssodia tephroleuca, ashy dogweed, has been proposed by the Service as Endangered because of threats to its natural habitat, including overgrazing, roadside blading, brush clearing and possible collecting and vandalism. Its only known population exists on a one-acre site in Zapata County, Texas. Most of the approximately 1,300 individual plants are on private property, although some are also on a state highway right-of-way.

According to the *Bulletin*, "the ashy dogweed is a perennial herb with stiff erect stems up to 30 centimeters in height. The flower heads (both ray and disk florets) are yellow to bright yellow. . . . Flowering occurs from March to May, depending on rainfall. The plants occur in fine, sandy-loam soils in open areas

of a grassland-shrub community.

Continuing urbanization and horticultural exploitation threaten *Cereus robinii*, Key tree-cactus, proposed for listing as an Endangered Species. The plant occurs only in the Florida Keys and in Cuba. Five populations are known to exist in the Keys, where the rocky hardwood hammocks in which the plants grow are undergoing rapid residential and recreational development, causing even the loss of the hardwood hammock habitats themselves. Populations in Cuba are subject to similar threats.

The largest of the native Florida cacti, *Cereus robinii* consists of two varieties: *Cereus robinii* var. *robinii* and *Cereus robinii* var. *deeringii*. Its upright, branched stems grow as high as 25 feet. The white, green or purplish flowers are beautiful, as is the fruit, a dark red berry. The attractiveness of this species has led to overcollection and vandalism. Critical Habitat has not been proposed, as the plants would become more vulnerable.

—*Endangered Species Technical Bulletin, July and August, 1983*

Endangered Wild Flower Calendar



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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.

●*Rhododendron carolinianum*, any apricot, cream, peach, salmon or yellow flowered forms of the Carolina rhododendron. Mr. W. D. Hogan, Parrottsville, TN 37843.

●*Strongylodon macrobotrys*, jade vine, a vining member of the legume family with pale green leaves that turn dark green as they mature. Mary Louise Davison Johnson, 609 Poia Place, Edgeworth, Sewickley, PA 15143.

●*Salvia dorisiana*, a herbaceous plant, generally cultivated as an annual, with rose-pink flowers. Leland S. Richardson, 750 West Levee Street, Brownsville, TX 78520.

●*Stictocardia macalusoii*, a tropical woody vine with bright red morning-glory-like flowers. Also interested in *S. incomta* and *S. beraviensis*. John E. Bussey, 838 West End Avenue, New York, NY 10025.

●*Aconitum lycoctonum*, wolfsbane monkshood, a six-foot perennial with yellow to creamy yellow flowers, native to Europe and Siberia.
●*Rodgersia pinnata* and its cultivar 'Alba'; the species is pink-flowered.
●*Rodgersia aesculifolia*, a four-foot plant with white-pink flowers and bronze-tinted leaves. Both of the latter species are native to China. Byron M. Getchell, 14 Milk Street, Newburyport, MA 01950.

●*Clematis texensis* (formerly *C. cocinea*), a scarlet- or purple-red-flowered clematis with nodding flowers. Native to Texas. Edwin Lee Morrell, 1441 Burns, Detroit, MI 48214.

●*Turnera diffusa*, sometimes called *Damiana*, or any species of *Turnera* used for tea or medicinal purposes.

Ed Ullery, 1805 Glenwood Road, Glendale, CA 91201.

●*Rosa* 'Bloomsday', a floribunda rose with orange or orange blend flowers. Introduced by the Royal National Rose Society/Sean McCann. Clay Carmichael, 103-A East Poplar Avenue, Carrboro, NC 27510.

●*Buddleia asiatica*, a tender shrub or small tree with very fragrant white flowers. Grown in greenhouses or U.S.D.A. Zone 10. Earl H. New, 40 Sonderhen Drive, Naples, FL 33962.

●*Tsuga canadensis* 'Abbott's No. 10', a dwarf hemlock cultivar probably from the collection of breeder Joe Abbott from Massachusetts. Clifton Pottberg, The Ranch Nursery, P.O. Box 5130, Hudson, FL 33567.

●*Impatiens glandulifera*, formerly *I. roylei*, a coarse garden annual with deep purple, bluish or white flowers borne in axillary racemes. Richard Baron, 250 Gorge Road #10B, Cliffside Park, NJ 07010.

●*Aster schreibeii*, Schreiber's aster. Betty McCain, Qtrs. 704, MCDEC, Quantico, VA 22134.

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.

1984 Seed Program

Many generous companies and individuals have donated seed to our 1984 Seed Program, which promises to be a big success. Since we must allow time to bag and tag all of the selections we have on hand, we can no longer accept seed for our 1984 Program. Look for your seed catalogue in the mail in January.

GARDENER'S MARKETPLACE

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50¢ per word; \$10.00 minimum per insertion. 10% discount for three consecutive insertions using same copy. Copy must be received two months prior to publication date. Send orders to the attention of Cindy Weakland, American Horticultural Society, Mount Vernon, Virginia 22121. Or call (703) 768-5700.

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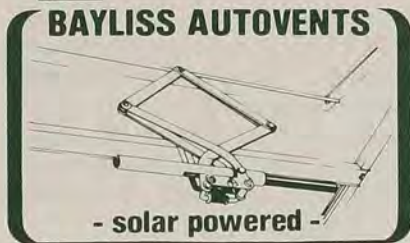
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Miniature Peonies for Small Gardens

Gardeners who have a limited amount of space should consider trying one or more of the dwarf peonies recommended by Leila Bradford in the September, 1983 issue of the *American Peony Society Bulletin*. Dwarf peonies have not received a great deal of attention from peony hybridizers, but should become much more popular as gardens become smaller.

A look through the Society's mail order catalogue file indicates that four of the plants are easily available from the retail sources listed below. 'Dutch Dwarf' is a wine-pink, single-flowered plant. 'Sunlight' bears ivory-yellow, single flowers. Both are about 18 inches tall. 'Laddie', a very dwarf, 12-inch plant, bears single red flowers. 'Rosedale' is a 19-inch plant with semi-double red flowers.

Busse Gardens (635 East 7th Street, Route 2, Box 13, Cokato, MN 55321, catalogue \$1.00) offers 'Laddie', 'Sunlight' and 'Rosedale' as well as three cultivars that are not on the list: 'Seraphim' with white flowers, 'Eliza Lundy' with bright red flowers, and 'Early Scout' with red flowers.

Klehm Nursery (2 East Algonquin Road, Arlington Heights & Algonquin Roads, Arlington Heights, IL 60005, catalogue \$1.00) lists 'Dutch Dwarf', 'Laddie' and 'Rosedale' as well as 'Fernleaf Double Red' (*Paeonia tenuifolia* 'Rubra Flora Plena'), a 15-inch plant that is not on the list.

Caprice Farm Nursery (15425 S.W. Pleasant Hill Road, Sherwood, OR 97140, catalogue \$.50) offers 'Laddie', 'Sunlight' and 'Seraphim'.

Bean Sprouts Need Cold Temperatures

Mung bean sprouts, which are commonly found in supermarkets and are easily "sprouted" from seed, will last longer if they are stored at near-freezing temperatures. According to plant pathologist Werner J. Lipton of Fresno, California, bean sprouts will last 8½ days when stored at 32° F. At higher temperatures—36°, 41° and 50° F—the sprouts deteriorate in 5½, 4½ and 2½ days, respectively. Lipton conducted the study to help supermarkets, who now handle 25 million pounds of sprouts annually, prolong the sprouts' shelf life.

—*Agricultural Research*,
July/August, 1983

Desert Plant: Plastic Source?

Popweed (*Lesquerella* sp.), a small, bushy plant common in the American Southwest, may become an important source for plastic in the future.

According to researchers at Lehigh University, popweed oil forms a tough plastic when mixed with polystyrene, a petroleum-based plastic. When combined with a compound from castor beans, the oil of popweed forms a more pliable polyester plastic.

—*Washington Post*, September 1,
1983

Preserving Gourd Color

Ornamental gourds generally lose their brilliant coloring when they are dried, but American Gourd Society member Jim Story has discovered a method for perfectly preserving the color. Mr. Story lists the following steps for gardeners who would like to try his method:

1. Select fully mature gourds.
2. Use a hacksaw blade to cut the gourd in half or in desired portions.
3. Use melon scoop to remove seeds

and pulp. All of the pulp must be removed.

4. Wash gourd parts in warm, sudsy water and rinse.
5. Immerse gourd parts in a mild Clorox (bleach) solution for five minutes. Do not rinse.
6. Dry inside in a well-ventilated area.
7. When thoroughly dry, varnish or wax to bring out the colors.

—*The Gourd*, June, 1983

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