

American Horticulturist



Jean Jenkins

**1988 Seed Program
Catalog Enclosed!**

1988 AHS Awards Announced

For all its rewards, gardening demands patience, commitment, and a lot of plain hard work. The 1988 American Horticultural Society Awards, to be presented April 16 in Atlanta, Georgia, honor those who have translated their commitment to horticulture into a commitment to achievement and service. Perseverance and determination are qualities that all gardeners recognize and applaud; and so we applaud our 1988 award winners. The time they have dedicated to nurturing plans and projects — and people — has been of the greatest benefit to us all.

The Liberty Hyde Bailey Award

The 1988 Liberty Hyde Bailey Award, named for the well-known botanist credited with many plant discoveries, will be awarded to Elisabeth Carey Miller. The award recognizes more than pure achievement: it is presented in recognition of service and a pioneering spirit. Mrs. Pendleton Miller, a former AHS Board member, has amply demonstrated these qualities, perhaps most notably in her sponsorship of a number of significant public projects in the Seattle, Washington, area.

Mrs. Miller was a primary force in



Elisabeth Carey Miller

the horticultural development of the Lake Washington Ship Canal connecting Lake Washington and Puget Sound; she also acted as principal horticultural advisor for Operation Triangle, developing plans for the planting of traffic islands throughout the city of Seattle. One of her outstanding achievements is her sponsorship of the Lid Garden, constructed over one of Seattle's main highways.

As founder of the Washington State Roadside Council, she was instrumental in the adoption of model legislation for the control of billboards. During her tenure as a distinguished member of the Garden Club of America Horticultural Committee, she piloted a landmark survey project on environmentally tolerant plants. Mrs. Miller has been the recipient of many awards, including awards from the mayor and City Council of Seattle for her involvement in numerous civic projects throughout the years.

The G. B. Gunlogson Award

Creativity and inventiveness characterize the recipients of the G. B. Gunlogson Award, presented this year to Shepherd and Ellen Ogden of The Cook's Garden in Londonderry, Vermont. The award recognizes creativity in the design, construction, and maintenance of home flower or vegetable gardens; G. B. Gunlogson,

sponsor of the award, felt that home gardening would have an increasing impact on American life. He hoped to provide an incentive to encourage gardeners to explore the benefits of people-plant relationships.

"I'm the gardener, and Ellen is the cook," according to Shepherd Ogden, and from this partnership has grown a farm stand, nursery, and seed business specializing in hardy perennials plus seeds, plants, and produce for the serious cook. The Ogdens offer specialty seeds, particularly for unusual lettuce varieties and other salad greens, to backyard and market gardeners; most of the seeds offered are tested in the Ogdens' intensively-gardened acreage in Vermont.

The Cook's Garden is a family legacy of sorts: Shepherd's passion for gardening began in childhood, when he worked in the vegetable garden of his grandfather Samuel Ogden, the author of *Step by Step to Organic Vegetable Growing*. The Ogdens themselves frequently contribute articles on season extension and intensive gardening to magazines and other periodicals; they are collaborating on their first book, *The Cook's Garden*, scheduled for publication this spring.

The Catherine H. Sweeney Award

Virginia Hand Callaway of Pine Mountain, Georgia, a nationally acclaimed conservationist, educator, and self-taught horticulturist, co-founded Callaway Gardens with her husband, the late Cason Callaway, in 1952. Cason Callaway, Jr., recalls his father's comment: "I spent a lot of time concentrating on getting from point A to point B. It was Virginia who taught me to take the time to notice and enjoy all the places in between." Mrs. Callaway is the recipient of the 1988 Catherine H. Sweeney Award, presented in honor of extraordinary and dedicated efforts in the field of horticulture.

Mrs. Callaway's numerous achievements are perhaps best exemplified by Callaway Gardens, an oasis of natural beauty designed to provide "relaxation, inspiration, and a better understanding of the living world." From the outset, Mrs. Callaway super-

American Horticulturist

VOLUME 67 NUMBER 1

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Address all editorial correspondence to: **The Editor, American Horticulturist, American Horticultural Society, Box 0105, Mount Vernon, Virginia 22121.** AMERICAN HORTICULTURIST, ISSN 0096-4417, is published monthly by the American Horticultural Society, 7931 East Boulevard Drive, Alexandria, Virginia 22308, 703-768-5700. The American Horticultural Society is a nonprofit organization devoted to excellence in horticulture. National membership dues are \$25; foreign dues are \$30. \$12 of dues are designated for the AMERICAN HORTICULTURIST. Copyright © 1988 by the American Horticultural Society. Contributions are deductible for income tax purposes. Second-class postage paid at Alexandria, Virginia and at additional mailing offices. **Postmaster:** Please send Form 3579 to AMERICAN HORTICULTURIST, Box 0105, Mount Vernon, Virginia 22121.



Shepherd and Ellen Ogden



Virginia Hand Callaway



J. Barry Ferguson



Wayside Gardens Catalog

vised the planting and maintenance of the Gardens, including the planting and displays of various flora; her purpose was to preserve in its natural setting the native plant life of the Southeastern region, and to restore the land to the beauty and richness it originally possessed. Callaway Gardens is a symbol of what wise land management and conservation awareness can accomplish.

Mrs. Callaway has received recognition from a number of organizations for her conservation efforts; in 1974, the Georgia Wildlife Federation named her conservation educator of the year. The U.S. Department of the Interior honored her with the prestigious Heritage Conservation and Recreation Services Achievement Award. In 1985 she received the Rock How-

ard Award from the Georgia Department of Natural Resources for her contributions to environmental conservation in the state.

The Frances Jones Poetker Award

J. Barry Ferguson of Oyster Bay, New York, is the 1988 recipient of the Frances Jones Poetker Award, presented in recognition of significant contributions to the appreciation of creative floral designs.

Mr. Ferguson is an internationally known landscape and garden designer whose activities include lecturing, leading tours, and maintaining plantings in one of New York City's most beautiful vest pocket parks, Greenacre Park, as well as planning and installation for such events as the Britain Salutes New York festivities.

Mr. Ferguson is responsible for flowers and aisle displays each year at the East Side House Benefit Winter Antique Show in New York City. His design expertise is world-renowned.

Commercial Award

Winner of the 1988 Commercial Award is Wayside Gardens of South Carolina, cited for high standards and significant contributions to gardening. Wayside Gardens' long and distinguished history began in 1920, when nurseryman Elmer Schultz and plantsman Jan Grullemans pooled their European horticultural backgrounds to form a mail-order nursery in Mentor, Ohio.

Throughout the years, Wayside has introduced a variety of superb plants to the American gardener, including Ideal Darwin tulips and the famous Rothschild azaleas.

Wayside was purchased in 1975 by the George W. Park Seed Company and was transferred to Hodges, South Carolina, where the company continues its unquestioned leadership in the field.

Horticultural Therapy Award

Descanso Gardens, one of three botanic gardens of Los Angeles County, is well known for its roses, lilacs, and California live oaks, and for the largest collection of camellias in the world. The gardens have yet another claim to fame in the Descanso Gardens Guild Exceptional Children's program, begun in 1960 to provide garden experiences for exceptional children. The enthusiasm of all concerned gives eloquent testimony to the success of the endeavor, which has won the 1988 Horticultural Therapy Award.

Students in the program range in age from 7 to 21 years; most are mentally, physically, or orthopedically handicapped or have academic learning problems. The students plant gardens, participate in nature walks, and celebrate events throughout the year, such as Christmas and Easter, with special activities. The Gardening Scholarship enables older students to work under the tutelage of Descanso gardeners; the rewards for this work include both the financial and something even more valuable: the priceless benefits of self-confidence and pride. In the words of program chairman Connie

McKenney, "The people we bring together — adults and children — enjoy one another so much. The enthusiasm spills over into everything we do. Our special events, such as our May Day celebration, really draw crowds." The program is obviously more than a model of its kind — it is a delight to all who participate.

Horticultural Communication Award

This year's recipients of the Horticultural Communication Award are Dr. John Alex Floyd, Jr., and the Southern Progress Corporation, parent company of *Southern Living* magazine. Dr. Floyd is currently the senior horticulturist for *Southern Living* magazine and editorial director of *Creative Ideas for Living* and *Cooking Light*. His distinguished editorial contributions include the development and management of *Southern Living's* Garden and Landscape Department; under his direction the department won three national awards for editorial excellence in landscape architecture and horticulture.

Dr. Floyd has been an enthusiastic — and indispensable — part of the development and expansion of the Birmingham (Alabama) Botanical Gardens, where he served as president; the American Horticultural Society honors Dr. Floyd and Southern Progress Corporation for a most effective contribution to expanding the horticultural awareness of the southeastern United States.

Landscape Design Award

Edith Henderson wears many hats: she is a fellow and former vice president of the American Society of Landscape Architects in Atlanta, where she practices landscape architecture; she is also much in demand as a horticultural lecturer and writer, media in which she emphasizes her belief that a design plan is only as good as the plant material used to express it. The American Horticultural Society is pleased to award her the 1988 Landscape Design Award for her work, which has greatly expanded the awareness of horticulture in landscape architecture.

Mrs. Henderson is a member and former president of the Garden Club of America and of the Garden Club of Georgia, and she is a trustee of



People helping people at Descanso Gardens

the Atlanta Botanical Garden. The Garden Club of America presented her with the Oakleigh Thorne Medal for excellence in landscape design; from the Garden Club of Georgia she received their Certificate of Merit for Outstanding Contribution. She is the editor of the *Peachtree Garden Book*, which unites design and horticulture through each month with workable facts for all gardeners.

Local Horticulture Award

In 1967, when the Atlanta Historical Society's Grounds Advisory Committee was formed, members faced long-neglected, overgrown gardens, an impasse of tangled vines, brambles, and fallen trees, and very limited funds. The committee rose to the challenge, and through the ensuing years the Society has effected an astonishing transformation. The Society's grounds today encompass a historic (circa 1835) farmhouse, restored classical gardens around the Palladian-style Swan House, and a ten-acre ecological laboratory, a project that won the Founder's Fund Award of the Garden Club of America.

The Local Horticulture Award is presented for horticultural improvement or excellence in the host city for the American Horticultural Society's Annual Meeting, but the Atlanta Historical Society has accomplished even more than this. Besides advancing ecological awareness, increasing horticultural knowledge, and fostering research, the Society has sparked

a tremendous cooperative effort on the part of the Atlanta horticultural community. A total of 28 garden clubs and three specialized groups, as well as the original Grounds Advisory Committee, worked together to create a garden that they whimsically, and with justified pride, call "the most delightful country of the universe."

Meritorious Service Award

"I like to feel useful to the community," says Georgie Van de Kamp, and though that is usually the most she will say about her landmark efforts on behalf of the community in Pasadena, California, her work speaks for itself. Mrs. Van de Kamp's concern for preserving natural beauty — as well as her talent for helping to create it — are well known in the horticultural community; for these qualities, as well as for her distinguished service as a member of the American Horticultural Society's Board of Directors, we are honored to present her with the 1988 Meritorious Service Award. No one has done more than Mrs. Van de Kamp to advance the Society's goals, services, and activities dedicated to excellence in horticulture.

As chairman of the 1980 Descanso Gardens Education and Exhibition building project, Mrs. Van de Kamp was the force behind a tremendously successful fund-raising drive, demonstrating a remarkable talent for bringing energy and commitment to her task: that of expanding horticultural awareness and opportunities for the community. Her remarkable achievement won her the Gold Crown Tenth Muse Award of the Pasadena Arts Council.

Professional Award

Ann Lyon Crammond exudes energy. Under her capable direction, the Atlanta Botanical Garden has become one of the Southeast's most beautiful civic showplaces. In recognition of this and many other professional contributions, the American Horticultural Society has selected Mrs. Crammond to receive its 1988 Professional Award.

When Ann Crammond arrived as executive director of the Atlanta Botanical Garden in 1979, she found a headquarters consisting of two city trailers and a paid staff of two. Today,



John Alex Floyd, Jr.



Edith Henderson



Georgie Van de Kamp



Atlanta Historical Society



Ann Lyon Crammond



J. Irwin Miller



Philadelphia Green

the Garden has blossomed into an organization of 6,000 members with a professional staff of 28 and 350 volunteers; it also boasts a new Gardenhouse and fifteen diverse gardens. Mrs. Crammond has combined dedication, determination, and extensive horticultural knowledge with warmth and good humor to galvanize the Atlanta horticultural community.

Teaching Award

The AHS 1988 Teaching Award will be presented to Dr. Barbara Shalucha, associate professor of biology at Indiana University in Bloomington, Indiana. Dr. Shalucha's unique ability to share her horticultural knowledge with others has been amply demon-

strated throughout her long and distinguished career, which has taken her as far afield as Australia and China.

Dr. Shalucha came to Indiana University in 1947 from Brooklyn Botanic Garden in Brooklyn, New York, where she was instrumental in the development of innovative courses of study for students in the then-new Park Administration and Recreation Department. She is co-founder and director of Bloomington's Youth Garden-Nature Center; branches of the program are scattered throughout the nation and abroad. She has authored many technical publications as well as non-technical gardening publications, laboratory manuals, and

children's books and has been consistently effective in providing quality horticultural education for adults and youth.

Urban Beautification Award (individual)

The 1988 American Horticultural Society's Urban Beautification Award is presented to Joseph Irwin Miller of Columbus, Indiana, a distinguished alumnus of Oxford and Yale Universities and chairman of the Executive and Finance committees of the Cummins Engine Company, Inc. In addition to the Urban Beautification Award, presented for significant contributions to urban horticulture, Mr. Irwin has been the recipient of a number of honors throughout his distinguished career, including the University of Chicago's Rosenberg Medal, the McDowell Colony Award, and election to the National Building Hall of Fame.

Urban Beautification Award (institution)

Philadelphia Green, the Pennsylvania Horticultural Society's community outreach program, has served as a model for urban greening efforts across the country; the program assists organized neighborhoods in Philadelphia's low and moderate income areas to plan and implement greening projects. The project has changed vacant lots throughout the city into productive and beautiful vegetable and flower gardens and has transformed the city streets of Philadelphia with trees, shrubs, and flowers. For these efforts, which have resulted in the most concentrated urban greening movement in the country, Philadelphia Green has been awarded the American Horticultural Society's Urban Beautification Award.

Philadelphia Green provides technical assistance, plants, construction materials, and encouragement to inner city groups. The greening projects bring benefits that include savings on food costs, visual relief from barren or intensively built up environments, and vitalization and motivation of residents. We salute their efforts and commend them as an example.

Look for announcements of additional award winners in the upcoming March News Edition of *American Horticulturist*.



42nd Annual Williamsburg Garden Symposium

April 10-13, 1988

"The Lure and Lore of the Garden" will be the theme explored by respected horticultural authorities in daily lectures, clinics, demonstrations and tours at the peak of springtime in beautiful Colonial Williamsburg.

Topics will include peonies, irises, Georgia's Callaway Gardens, and the gardens of Seattle, the Symposium's featured city. A highlight will be a demonstration and lecture by **Sheila Macqueen**, renowned British flower arranger.

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Gardener's Dateline

January 9-10 San Francisco Rose Society Annual Volunteer Pruning

San Francisco Public Rose Garden, Golden Gate Park, San Francisco, California (January 9). On January 10, 2 p.m., a special program dedicated to rose pruning will be held at 130 Portal Avenue, San Francisco, CA.

January 23-24 South Coast Camellia Show

South Coast Botanic Garden, 26300 Crenshaw Boulevard, Palos Verdes Peninsula, California. Hours: Saturday, 1 p.m. to 4 p.m.; Sunday, 11 a.m. to 4:30 p.m. Admission: Adults, \$3; Senior citizens and students, \$1.50; Ages 5 through 12, 75 cents. Information: South Coast Botanic Garden, 26300 Crenshaw Boulevard, Palos Verdes Peninsula, CA 90274, (213) 772-5813.

January 29-31 American Rock Garden Society Eastern Study Weekend

Sheraton Tara Hotel, Framingham, Massachusetts. Registration: \$75. Information: Buffy Parker, 15 Fairmead Rd., Darien, CT 06820.

February 3-5 Southern Farm Show

North Carolina State Fairgrounds, Raleigh, North Carolina. Information: David Zimmerman, Manager, Southern Shows, Inc., P.O. Box 36859, Charlotte, NC 28236, (800) 334-0248; in NC (800) 532-0189.

February 4-7 Midwest Flower, Garden, and Outdoor Living Show

Omaha Civic Auditorium, 1804 Capitol Avenue, Omaha, Nebraska. Admission: Adults, \$3.75; Children 3-12 years, \$1.75 (under 3, free). Hours: Thursday-Saturday, 11 a.m. to 9 p.m.; Sunday, 11 a.m. to 5 p.m. Information: Jane Booth, Events Coordinator, Lutheran Medical Center, P.O. Box 3434, Omaha, NE 68103, (402) 536-6994.

February 5-14 Colorado Home and Garden Show

Currigan Hall, Denver, Colorado. Information: Industrial Expositions, Inc., P.O. Box 1238, Wheat Ridge, CO 80033, (303) 422-3444.

February 10-14 Atlanta Flower Show

Atlanta Apparel Mart, Atlanta, Georgia. Admission: Adults, \$6; Seniors (65 and older) \$4; Advance tickets, \$5. Information: Atlanta Botanical Gardens, P.O. Box 77246, Atlanta, GA 30357, (404) 874-1988.

February 11-14 Iowa Home and Garden Show

Veterans Memorial Auditorium, 833 5th Ave., Des Moines, Iowa. Admission: Adults, \$3.75. Information: Trade Shows, Inc., 15235 Minnetonka Blvd., Minnetonka, MN 55345, (612) 933-3850.

February 12-14 Central Missouri Home, Lawn, and Garden Show

Midway Exposition Center, Columbia, Missouri. Admission: \$3. Information: Charles G. Page, Route #3, Box 12, Gra-vois Mills, MO 65037, (314) 372-2277.

February 12-21 Vancouver Home and Garden Show

BC Place Stadium, Vancouver, British Columbia. Information: Simon Roberts, Show Manager, Suite 202, 535 W. 10th Avenue, Vancouver, BC V5Z 3H4, (604) 874-5233.

February 18-21 Minnesota Home and Garden Show

Minneapolis Auditorium and Convention Hall, 3rd and 15th St., Minneapolis, Minnesota. Admission: \$4.50. Hours: Thursday, 4 p.m. to 10 p.m.; Friday, 12 p.m. to 10 p.m.; Saturday, 10 a.m. to 10 p.m.; Sunday, 10 a.m. to 7 p.m. Information: Trade Shows, Inc., 15235 Minnetonka Blvd., Minneapolis, MN 55345, (612) 933-3850.

February 20-28 Kansas City Flower, Lawn and Garden Show

H. Roe Bartle Exhibition Hall, 13th and Wyandotte Streets, Kansas City, Missouri. Hours: 11 a.m. to 9 p.m. daily; 11 a.m. to 7 p.m. on February 28. Admission: Adults, \$4; Children, \$1.50. Information: Michael H. Malyn, Missouri Parks and Recreation, 5605 E. 63rd St., Kansas City, MO 64130, (816) 444-3113.

February 26-28 Ark-La-Tex Home and Garden Show

Exposition Hall, Shreveport, Louisiana.

Information: Charles G. Page, Route # 3, Box 12, Gravois Mills, MO 65037, (314) 372-2277.

**February 26-March 6
Cleveland Home and Flower Show**

Cleveland Public Hall/Downtown Convention Center Complex, Cleveland, Ohio. Hours: Opening day: 4 p.m. to 11 p.m.; Fridays and Saturdays, 11 a.m. to 11 p.m.; Sundays, 11 a.m. to 8 p.m.; Monday through Thursday, 11 a.m. to 10 p.m. Admission: Adults, \$6; Children 6-12, \$3 (under 6, free). Advance sale tickets available for \$4.50. Information: Home and Flower Show, 118 St. Clair Ave., Cleveland, OH 44114, (216) 621-3145.

**February 27-March 6
Central Ohio Home and Garden Show**

Sponsored by Columbus Dispatch Charities. Ohio State Fairgrounds, Columbus, Ohio. Admission: Adults, \$4.50; Children, \$1. Information: Mark Erickson, 1172 W. Galbraith Rd., Suite 216, Cincinnati, OH 45231, (513) 522-7330.

**February 27-March 6
Southern Spring Show**

Charlotte Merchandise Mart, Charlotte, North Carolina. Admission: Adults, \$4.50; Children 6-18, \$2.50 (under 6, free). Information: Nora Kuster, c/o Southern Shows, Inc., P.O. Box 36859, Charlotte, NC 28236, (704) 376-6594.

**March 3-6
Metropolitan Louisville Home, Garden, and Flower Show**

Kentucky Fair and Exposition Center, Louisville, Kentucky. Information: Tony Short, Show Manager, 1800 Arthur Street, Louisville, KY 40217, (502) 637-9737.

**March 3-6
Miami International Orchid Show**

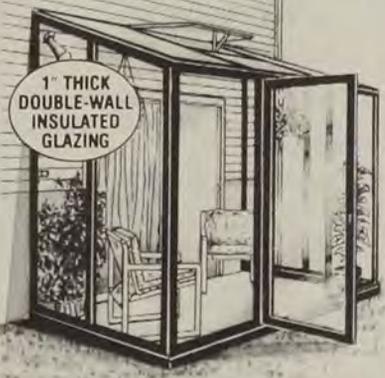
Coconut Grove Exhibition Center, 3360 Pan American Drive, Miami, Florida. Hours: 10 a.m. to 10 p.m. Friday and Saturday; 10 a.m. to 6 p.m. Sunday. Admission: Adults, \$5; Children under 12, free. Information: South Florida Orchid Society, 9005 S.W. 96th St., Miami, FL 33176, (305) 274-3741.

**March 3-6
Maryland Flower and Garden Show**

Festival Hall, Baltimore, Maryland. Hours: 10 a.m. to 9 p.m. daily; 10 a.m. to 7 p.m. on Sunday, March 6. Admission: Adults, \$4.50; Children 6 to 12, \$2 (under 6 free); Seniors, \$3.50 (Thursday and Friday only); Group rates available for 20 or more (Thursday and Friday only). Information: Lois Plummer, S & L Productions, Inc., 7870 Spruce Hill Road, Severn, MD 21144, (301) 969-8585.

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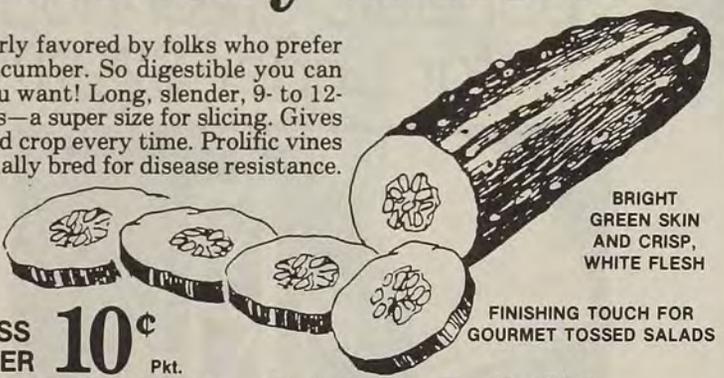
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March 5-13

New England Spring Flower Show

Bayside Exposition Center, Boston, Massachusetts. Admission: Adults, \$7; Seniors (March 7-13), \$6; Children 6-12 (March 7-13), \$2. Advance sales available. Hours: Monday-Saturday, 10 a.m. to 10 p.m.; Sundays, 10 a.m. to 8 p.m. Information: Terry Cronin, Massachusetts Horticultural Society, 300 Massachusetts Ave., Boston, MA 02115, (617) 536-9280.

March 5-13

New York Flower Show

New York Passenger Ship Terminal Pier 90, 55th St. and West Side Hwy., New York, New York. Admission: Saturdays and Sundays, \$9; Weekdays, \$7; Children 7 to 12, \$4 (under 7 free). Hours: 10 a.m. to 8 p.m. Information: Dave Harrington, Horticultural Society of New York, 128 W. 58th St., New York, NY 10019, (212) 757-0915.

March 6-13

Philadelphia Flower Show

Philadelphia Civic Center, 34th St. and Civic Center Blvd., Philadelphia, Pennsylvania. Admission: Adults, \$8.50; Children under 12, \$4.25; Advance (groups of 10 or more) \$7.75. Hours: Sundays, 10 a.m. to 6 p.m.; Monday through Saturday, 10 a.m. to 9:30 p.m. Information: Lisa Stephano, Pennsylvania Horticultural Society, 325 Walnut St., Philadelphia, PA 19106, (215) 625-8250.

March 9-10

Greenshow '88

Del Mar Fairgrounds, Del Mar, California. Information: Andy Mauro, Del Mar Fairgrounds, Del Mar, CA 92024, (619) 755-1161.

March 12-20

Indiana Flower and Patio Show

Indiana State Fairgrounds, 1202 E. 38th St., Indianapolis, Indiana. Admission: Adults, \$4.50; Children 6-12, \$2 (under 6 free). Hours: Friday and Saturdays, 11 a.m. to 10 p.m.; Sundays, 10 a.m. to 6 p.m.; Monday through Thursday, 11 a.m. to 9 p.m. Information: Thelma Schoenberger, P.O. Box 20189, Indianapolis, IN 46220-0189, (317) 255-4151.

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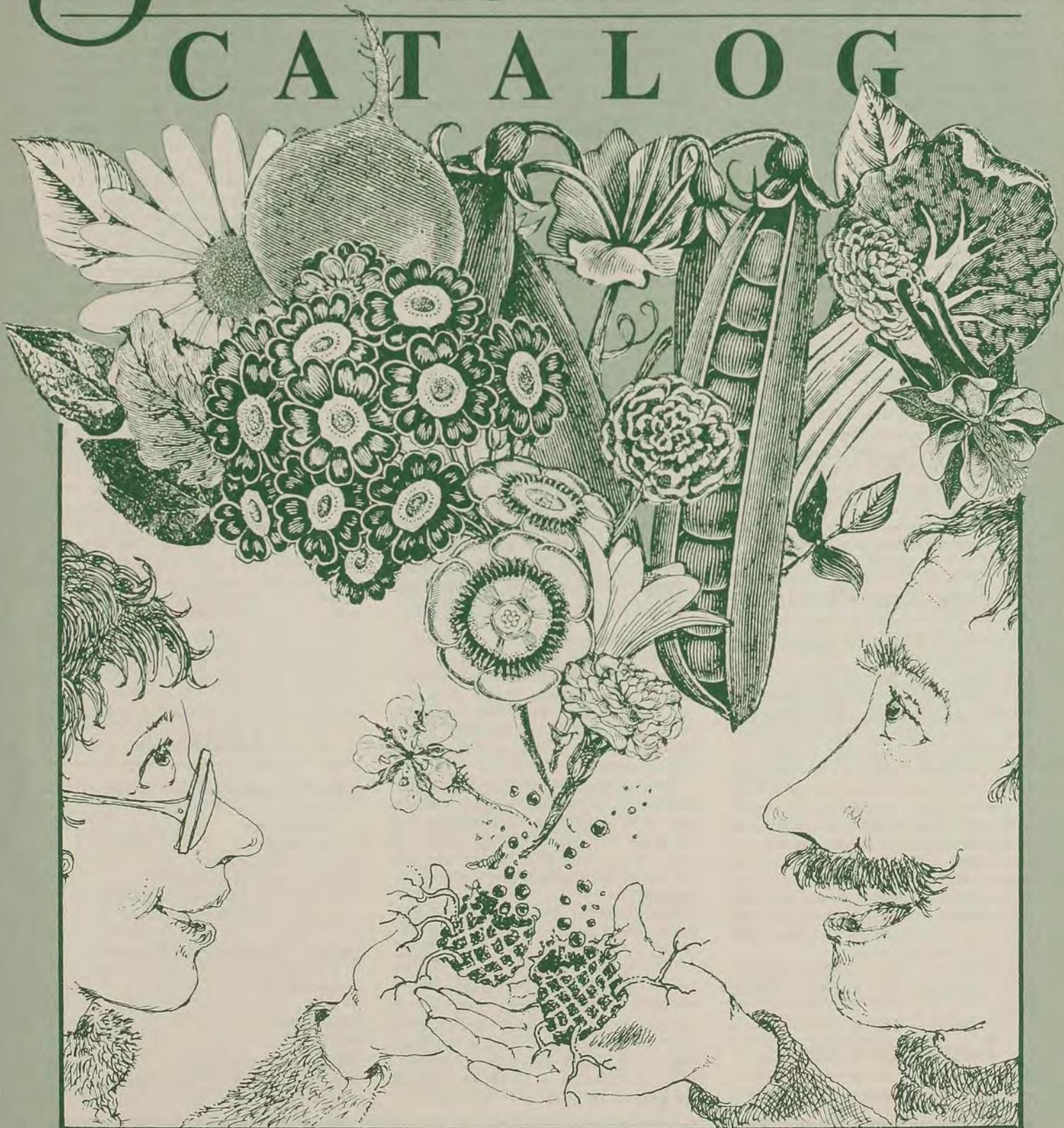
Errata

American Horticulturist regrets the following errors in the November News Edition: The artwork on pages 1 and 2 should have been credited to Joseph Hudak, not John Hudak; and on page 11, the monkey puzzle tree was incorrectly spelled. It should have been *Araucaria araucana*.

1988 · AHS

SEED PROGRAM

CATALOG



HOW TO USE THIS CATALOG

For gardeners, winter is a time to plan for the busy seasons ahead and to look forward to the rewards of lovely spring, summer, and fall flowers. With this issue we again offer the American Horticultural Society's annual seed program catalog to help with that planning. Take a few minutes to look through its pages at the host of fascinating plants donated by AHS members and friends of the Society. This year, more than ever, we have something for everyone, from old favorites to that new plant you've always wanted to try, or even a species you've never heard of before.

The selections range from common and much-loved marigolds, foxglove and columbine to rare species that are difficult to obtain from commercial sources. Ambitious gardeners will be pleased to see a special section devoted to bulbous and tuberous-rooted perennials. We also have special sections devoted to ornamental grasses, as well as vegetables and herbs. Gardeners in the warmer portions of this country, and those lucky individuals who have greenhouses, will want to browse through our list of tropical trees and shrubs. Finally, we have a wide range of perennials—both for the border and for the wildflower garden—as well as trees and shrubs.

For the gardener who loves to cook, we've included selections from *Recipes from a Kitchen Garden* by Renee Shepherd; her book is available through Shepherd's Garden Publishing, 7938 W. Zayante, Felton, CA 95018.

For the best selection, start your planning early and order your seeds now. We have included our seed catalog in the January *American Horticulturist* News Edition so that you can get the earliest possible start.

Selecting Plants

Use the table of contents on this page to help you select plants.

All of the seed distributed in the Society's Seed Program is donated to us by your fellow members and by seed companies, public gardens and plant societies from across the country. Although we have large quantities of many of the species listed here, in some cases donors were only able to provide small quantities of seed.

Whenever possible, we will send you your first-choice selections. We request that you list alternate selections, however, so if the supply of any of your first choices is depleted we can send your alternate choices. Our staff and volunteers who fill your order can make substitutions for you, but only you know what is best for your own garden.

Selections for which we have unusually small quantities are marked "limited supply."

Beginner's Seeds

If you are new at starting plants from seed,

you may want to consider some of the selections listed below. They germinate quickly and are all easy to grow.

Annuals. Use the general germination instructions for annuals for the following easy-to-germinate plants: *Amaranthus hybridus*, *Tagetes* (all listed cultivars), *Calendula Pacific Beauty* cultivar mix, *Zinnia* cultivar mix and *Impatiens balsamina*.

Perennials. Use the general germination instructions for perennials for the following easy-to-germinate plants: *Dianthus barbatus*, *Gaillardia aristata*, *Malva alcea*, and *Rudbeckia hirta* 'Goldsturm'.

How To Order

Once you have selected the seeds that you would like to grow, complete the order form on page 15.

We hope you will help us defray the costs of our Seed Program by enclosing a voluntary donation with your seed order. The cost of this program increases each year, and only the generosity of those who donate seed and those who help us with contributions allows us to continue the program. We ask for a minimum contribution of \$1.00 if you request seven packets of seed, and \$2.00 if you request 14. We are sure you'll agree that the value of the seed you receive is much greater than a dollar. You can help us continue to expand and improve our Seed Program if you contribute more.

This year we are offering a bonus to those of you who donate \$5.00 or more. If you donate \$5.00 or more we will send you a complimentary pack of seeds as a special "thank you" for your support.

Please send your completed order form and contribution (cash or check made out to the American Horticultural Society) to Seeds 1988, American Horticultural Society, P.O. Box 305, Mount Vernon, VA 22121. (Because of the complexities of foreign exchange, foreign members need not include a contribution with their order.)

After sending us your order, it is important that you keep this catalog; you will need it to identify the seeds you receive. All of the seed packets distributed in the Society's Seed Program are marked with only the master list numbers that appear in the catalog.

Please note that we cannot fill orders received after June 1.

Observations

Once again, we ask for your help in compiling information on the seed listed in this year's program. This information is valuable both to the Society and to those who have donated the seed we are offering.

Record such information as the date you sowed your seed, the date the seed germinated, the number of successful germinations, and the date you transplanted or set out your seedlings. It would also help to include an evaluation of the seedlings' performance in the garden, including information on the planting site selected and the susceptibility of the plants to disease and pests. This information will not only provide a valuable record for you in future growing seasons, it can help your fellow members as well. Cultivation tips for rare or unusual species are especially helpful.

If you know any special handling tips or have extensive information on any of the rare species in this year's list, pass them along to us. Your information may help improve a fellow member's results next year with one of your favorite plants. The information need not be detailed; just tell it like it is.

When you have completed your report, send it to Seeds in care of the Society, P.O. Box 0105, Mount Vernon, VA 22121.

Also, please help us better serve you by giving us your ideas and recommendations concerning the Seed Program. Your suggestions and comments will help us as we develop next year's program.

Seed Program '89

Plan now to donate seed to the Society's 1989 Seed Program! Although seed companies and botanical gardens donate seed to this exciting program every year, the majority of the items we list are donated by you, our members. Those of you who can only harvest and donate small quantities of seed need not despair; this year several of the selections we are offering were donated in small quantities by several individuals. These small donations, added together, provided us with enough seed to offer to program participants. For more information on the 1989 Seed Program, write to Seeds in care of the Society, P.O. Box 0105, Mount Vernon, VA 22121.

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GENERAL GERMINATION INSTRUCTIONS

To germinate any of the seeds in this catalog, use the following general planting instructions, and combine them with the specific sowing instructions given for annuals, perennials, trees and shrubs on this page. Any exceptions or special requirements (for example, stratification or scarification requirements) are mentioned in the individual plant descriptions.

Outdoors, sow seed into a prepared seed bed, and keep the bed moist until the seeds have germinated and plants are growing vigorously. Seeds that are sown in the fall for germination the following spring should be watered in and protected for the winter.

Indoors, sow seed in flats or other containers that have an ample number of drainage holes. Plants identified as difficult to transplant may be seeded directly into peat pots or pellets that will, in turn, be planted directly into the ground, thus minimizing shock.

Fill containers to within ¼ inch of the top with a commercial potting mix, or develop your own medium. A soilless medium consisting of equal parts of vermiculite, milled sphagnum and perlite is ideal.

Thoroughly moisten the medium and let it drain for two hours before sowing seeds. To control damping-off, many gardeners and professional horticulturists soak seed flats in fungicide before sowing. Use a fungicide that is recommended for this purpose. It is probably a good idea to wait 24 hours after treatment before sowing seed.

Sow the seed by pressing it into the moistened medium until it can be covered with soil to a depth equal to the diameter of the seed. Place very small seeds on the medium, and cover them lightly with milled sphagnum. Mist the surface after sowing, and label the flats or pots so you will be able to identify the seedlings when they appear.

Keep the medium moist. Water from the bottom by placing the flats or pots in a container of water until the moisture can be seen coming to the top of the medium. To provide uniform moisture and humidity, cover the containers with clear plastic bags. Do not let the plastic rest on the medium or touch the seedlings.

Place the container in strong, indirect light. Maintain an approximate temperature of 60° to 75° F.

Poke small holes in the plastic coverings as soon as the seedlings emerge. This will improve ventilation and prevent overheating. Transplant seedlings to individual containers if there is a danger of overcrowding.

Transplanting is the second most crucial period in a plant's life, after germination, so it is important to make this transition as gradually as possible. Harden off seedlings by slowly exposing them to brighter light and lower humidity, after they have produced their second set of true leaves. Finally, a few days before you plan to transplant, move the plants outdoors for a few hours per day to accustom them to their new environment.

Annuals

Indoors, sow seed six to eight weeks before the plants are to be set outdoors, which should be done after all danger of frost is past. Transplanting two weeks after the frost date in your area is generally safe. Many annuals will not start growing until the ground warms up in the spring, so early transplanting will not necessarily give them a head start.

Recommended temperatures for the growing medium are 65° to 70° F. Seed should germinate within 20 days unless otherwise indicated.

Outdoors, annuals can be sown into a prepared seed bed after all danger of frost is past.

All of the annuals listed can be sown according to these general instructions unless otherwise indicated. Exceptions to these rules, as well as specific sowing instructions that will improve results, are included in the individual plant descriptions.

Germination Times

Annual seeds will usually germinate within two or three weeks, but perennials usually take a longer time and may not flower until the second year. Remember to keep seeds moist until seedlings are firmly established.

Perennials & Biennials

Indoors, sow perennials four to six weeks before transplanting to the garden, which should be done after danger of frost is past. Although well-hardened perennial seedlings can withstand cool temperatures, transplanting about two weeks after the last frost date in your area is probably best.

Recommended temperatures for the growing medium are 65° to 70° F. Unless otherwise indicated, seed should germinate within 20 days. However, perennial seed may germinate slowly over a long period of time, even if a few individuals pop up almost immediately. Keep seeded flats moist for two to three months, to avoid throwing away seed that is still viable.

Outdoors, sow seed in the spring two weeks after the last frost date, and in the summer or fall, up to two months before the first frost of autumn is expected.

All of the perennials listed can be sown according to these general instructions unless otherwise indicated. Treatments necessary to satisfy seed dormancy factors, exceptions to these rules and more specific sowing instructions that will improve results are included in the individual plant descriptions.

Trees & Shrubs

Indoors, sow seed of trees and shrubs anytime. However, be sure adequate light and moisture and proper temperatures are provided. If sown in the spring, grow the plants through the summer in containers and set them out in the early fall; or sow them in containers and grow them under controlled conditions for a year or more before planting them out in the garden.

Outdoors, sow them in a prepared seed bed in the fall. Be sure to protect the seed from alternating periods of freezing and thawing with a layer of mulch. Keep rodents away with a layer of wire mesh.

All of the trees and shrubs listed can be sown according to these general instructions unless otherwise indicated. Exceptions to these rules are included in the individual plant descriptions.

Stratification & Scarification

Cold stratification. Place seeds that require a period of cold stratification in order to germinate in a plastic bag with a small amount of moistened sand, peat moss or sphagnum moss, or a mixture of half sand and half peat moss. Close the bag with a rubber band or a twist-tie and place it in the refrigerator (about 40° F) for the length of time specified in the individual plant descriptions. The mixture should be just damp, not soggy; otherwise, the seeds will rot. Sow the seeds according to instructions after the required period of time, or if they begin to germinate.

Warm stratification. Seeds that exhibit double dormancy must often be stratified at warm temperatures before they can be given a period of cold stratification. Place these seeds in a plastic bag, as prescribed for seeds to be cold-stratified, but keep them in a spot where they will be exposed to temperatures of 65° to 85° F.

Scarification. The seeds of many species remain dormant because of hard seed coats that water cannot penetrate. Scarify these seeds by nicking the seed coat with a knife or filing it down with sandpaper or an emery board. Or, pour boiling water over the seeds and leave them to soak for 24 hours. Some seeds require both treatments.

Annuals are among the easiest of garden plants to grow from seed. They also are relatively carefree. For information on germinating any of the following species, see the "Germination for Annuals" section on page 3 of this catalog. Specific sowing instructions (if any) that will help improve your results appear in the individual species description.

1. *Agrostemma* spp. (mix of species).

Corn cockle, Purple cockle. These very old-fashioned country flowers have satiny, open, cup-shaped lilac-rose blooms with finely striped throats. The delicate shimmery flowers are borne on long slender stems above grassy gray-green foliage throughout spring and early summer. Two to three foot plants self-sow readily and soften the landscape with a wave of color.

2. *Amaranthus hybridus*.

Green amaranth. Annual to 7 feet with lavender or creamy white panicles. Plant in full sun and protect tender young plants from rabbits. Can be weedy. Used in flower arrangements. Young leaves can be eaten. Native to tropical America.

3. *Asclepias fruticosa*.

Butterfly milkweed. This species has NOT
ice-shaped leaves and small, white leaf axils. Produces 5 AVAILABLE
yellow bristly flowers. Native to Africa. Limited supply.

4. *Calendula officinalis* cvs. (mix of Pacific Beauty cultivars).

Pot marigold. Mix of brilliantly colored flowering plants that grow to 20 inches tall. Flowers are 3 to 3½ inches wide. Each plant can spread 18 to 20 inches. Great for cutting gardens.

5. *Cleome hasslerana*.

Spider flower. Showy, 3- to 6-foot plant with large, 6- to 7-inch heads of airy, orchid-like blooms in shades of rose, pink, white or lavender. Flowers borne from midsummer to fall. Full sun. Will reseed at great rate. Remove seed pods prior to maturity to reduce next year's weeding. Sow outdoors in spring or fall.

6. *Delphinium* sp.

Larkspur. Three foot plants bearing racemes of small, dark purple, bluish or white flowers with curved spurs. Racemes generally are many flowered. Early summer blooms.

7. *Gypsophila muralis*.

Baby's breath. Three-foot annual bearing clouds of tiny white flowers in June and July. Will continue to bloom into fall if faded flowers are sheared. Full sun and well-drained, alkaline soil.

8. *Impatiens balsamina*.

Garden balsam, touch-me-not. Summer-blooming annual. Great for flower beds and borders. Waxy flowers are single or double. Flowers resemble tiny roses, solid color or spotted in a wide range of colors, and are 1¼ inches in size.

This easy-to-grow 12 to 36-inch plant thrives in the shade where summers are hot and in the sun where summers are cooler.

9. *Nemophila menziesii*.

Baby blue eyes. Reseeding annual that grows to 10 inches. Small buttercup-like flowers are cool blue and appear from spring through mid to late summer. Likes partial shade and will tolerate medium to low water. Native to California. Germinates in 7-12 days.

10. *Nigella damascena*.

Love in a mist. This plant has fern-like foliage and blue or lavender flowers with a fuzzy green "veil." Grows to 15 inches high. Seed pods can be used in dried bouquets. Full sun; average soil with excellent drainage. Sow outdoors using general germination instructions for annuals. Difficult to transplant.

11. *Zinnia* cvs. (cultivar mix).

Zinnia. One of the easiest garden annuals to grow. Bushy plants with stiff growth habit; blooms in a variety of colors. Sow outdoors using general germination instructions for annuals. Remove spent flowers to maintain compact habit and prolong flowering.

Annual Vines

12. *Lathyrus odoratus* cvs. (mix of Mammoth cultivars)

Sweet pea. Mixture of large-flowered, long-stemmed sweet peas in an assortment of bright colors, including pink, white and salmon. Full sun; deep, rich, fertile, slightly acid soil. Mulch to keep roots cool. Sow indoors 4 to 6 weeks before last frost date following scarification treatment for hard seed coat. Plant seed at depth of 1½ to 2 inches; darkness required for germination. Keep medium at a temperature of 55° to 65° F.

13. *Luffa aegyptiaca*.

Sponge gourd. Tender, tendril-bearing vine. Needs a long growing season. Cylindrical fruit grows to 2 feet long on trellised vines. The fruit may be dried and used for decoration, or as a sponge. Native to the Old World tropics. Soak seed in warm water for 24 hours, then sow outdoors after all danger of frost is past, or sow indoors 6 to 8 weeks before last frost in individual pots, keeping medium temperature at 70° F. Seeds germinate in 8-10 days.

Marigolds

This year, we are offering a special section on marigolds. The items listed below are easy to germinate, bloom all summer long, and don't require much work. We hope that you take your time to look carefully through this section and choose from our offering. Follow cultural instructions for annuals.

14. *Tagetes* cvs. (mix of Cabaret cul-

tivars). A sunny mixture of dwarf marigolds. Flower heads are 2 inches in diameter on compact 14-inch plants.

15. *Tagetes* 'Cabaret Orange'.

Deep orange dwarf French marigold for window boxes, flower beds, and front of the border.

16. *Tagetes* cv.

Beautiful showy red flowers about 1 to 1½ inches across, on plants growing to 8 inches tall.

17. *Tagetes* 'First Lady'.

Beautiful showy yellow and orange flowers about 2 to 2½ inches across; grows 2½ to 3 feet tall.

18. *Tagetes* 'Gay Ladies'.

Mix of showy, big flowers in colors of yellow, primrose, gold and deep orange. Plants don't need staking. Flowers measure up to 3½ inches across. Each plant forms a round 20-inch bush and remains neat all season long.

19. *Tagetes* 'Gypsy Dancer'.

Dwarf French-type marigold with gold crest and red ray petals. Flowers 2 inches in diameter on a 14-inch plant.

20. *Tagetes* 'Harvest Moon'.

Dwarf French-type marigold. Flowers are a deep glowing orange, 2 inches in diameter. Plant grows 14 inches tall.

21. *Tagetes* 'Honeymoon'.

Dwarf crested marigold. Bright yellow 2-inch flowers.

22. *Tagetes* 'Pagan Moon'.

Dwarf French crested golden marigold with mahogany outer petals.

23. *Tagetes* cvs. (mix of Petite Choice cultivars).

Mix of orange and yellow flowered low-growing marigolds.



ORNAMENTAL GRASSES

These attractive annuals and perennials are perfect for adding texture to a perennial garden, and they are also effective when used as accent plants. Their foliage and attractive seed heads catch the light and flutter in the breeze, providing billowy movement wherever they are planted. The seed heads are also perfect for dried bouquets.

24. *Agrostis nebulosa*. Cloud grass. Ornamental annual grass with delicate, fluffy panicles. Excellent for dried bouquets and beautiful in the garden. Height 12 to 18 inches. Full sun. Use general germination instructions for annuals, but maintain medium temperature of 50° to 55° F. Do not cover seed; light aids germination, which takes 20 to 25 days.



25. *Briza maxima*. Quaking grass. Graceful, nodding annual ornamental grass with 2-foot seed heads that quiver and quake in breezes. See *Agrostis nebulosa*, #24, for cultural and germination information.

26. *Chasmanthium latifolium*. (Formerly *Uniola latifolia*.) Wild oats. Perennial ornamental grass that grows to 5 feet. When fruit heads are mature, they droop gracefully. Sow indoors or out using general germination instructions for perennials. Zone 3.

27. *Lagurus ovatus*. Hare's-tail grass. Annual ornamental grass, to 1 foot, with pale, wooly, 2-inch flower heads resembling rabbits' tails. Sow indoors or out using general germination instructions for annuals.

BIENNIALS & PERENNIALS

Biennials and perennials are herbaceous plants that live in the garden for more than one growing season; biennials for two and perennials for three or more. Their longevity and relatively low maintenance are two reasons for their increasing popularity. These plants may not have the long blooming period of many annuals, but biennials and perennials can be selected to provide flowers in the garden from the beginning of spring until late in the fall, and they do not need to be replaced every year.

To germinate any of the species listed below, use the information in the "Germination for Perennials" section on page 3. Specific sowing instructions that will help improve your results are included in the individual plant descriptions.

28. *Agastache foeniculum*. Anise hyssop, fennel giant hyssop. Three-foot perennial with fragrant blue flowers. Dried leaves used in seasoning and tea. Full sun and average, well-drained soil. Sow indoors using general germination instructions for perennials. Zone 4. Limited supply.

29. *Aquilegia canadensis*. Wild columbine. Nodding, 1½ to 4 inch flowers with red sepals, yellow petals and red spurs. Blue-green foliage. Short-lived spring bloomer that prefers rich, moist, well-drained soil in partial shade. Outdoors, sow in early spring about 2 weeks before last frost date. Indoors, provide a 3-week period of cold stratification, then germinate at temperatures of 70 to 75° F. Do not cover seed; light improves germination, which usually takes from 20 to 25 days. Zone 2 to 3.

30. *Anemone* spp. (mix of species). A mix of *A. narcissiflora*, *A. nemorosa*. Grows from 10 inches to 1½ feet. Flowers are

white or rose and from ½ to 1 inch across. Zone 3.

31. *Anemone virginiana*. Thimbleweed. Woodland plant to 1½ feet tall with compound leaves in a basal clump. Bears 1½ inch white or greenish-white flowers, 1 to 3 per stem, in June to August. Fruits look like thimbles. Natural habitat is dry or rocky sites. Partial shade; well-drained soil. Sow seeds outdoors in late fall or early spring. Zone 4.

32. *Anthemis tinctoria* 'Kelwayi'. Golden marguerite. Short-lived, three-foot perennial with very dissected foliage and summer-borne flowers. Flowers, which are daisy-like, are 1½ inches across and have bright yellow ray florets. Will reseed. Full sun; average soil. Tolerates poor soils and dry conditions. Zone 3.

33. *Baptisia australis*. Blue false indigo. Clover-like, blue-green leaves and indigo-blue flowers borne in late spring. Pea family member; seed can be inoculated with nitrogen-fixing bacteria as are legumes grown as vegetables. Full sun. Scarify hard seed coats before sowing. Outdoors, sow in very early spring or in late fall. Indoors, sow in early spring. Zone 3.

34. *Belamcanda chinensis*. Blackberry lily. Spectacular plant bearing late-summer clusters of 2-inch, lily-like flowers that are orange with red spots. Flowers are followed by seed pods that open to reveal ornamental, blackberry-like fruit. Iris-like foliage is 1 to 2 feet long. Full sun to light shade; well-drained soil. Zone 6.

35. *Centaurea macrocephala*. Globe Centaurea. Erect perennial plant that grows to 3 feet with leaves 3 inches long and yellow globelike flowers in June and July. Works

well in the border as a specimen plant. Zones 2 to 9.

36. *Chrysanthemum coccineum*. Painted daisy, pyrethrum. Two-foot perennial with dark green foliage. Bears long-stemmed, single or double daisy-like flowers, 3 inches in diameter. Flowers are red, pink, or white with yellow centers and appear from May to June. Great for flower beds, borders and cut flowers. Full sun; well-drained soil. Germination takes 20 to 25 days. Zone 2.

37. *Chrysanthemum parthenium*. Feverfew. Bushy, perennial herb with strongly scented foliage and numerous white-petaled, single or double, daisy-like flowers. Blooms in July and August. May be invasive. Full sun to partial shade; sandy, well-drained soil. Do not cover seed; light aids germination. Zone 4.

38. *Chrysanthemum* × *superbum*. Shasta daisy. Attractive, 3-foot-tall plant that blooms from June through August. Flowers are white with yellow centers and may be single or double, daisy-like in form or resembling anemones. Light shade to full sun; moist, well-drained soil. Do not cover seed; light required for germination. Zone 4.

39. *Chrysopsis villosa*. Hairy golden aster. Native perennial that grows to 2 feet and bears yellow flowers an inch across. Lanceolate leaves are 2 inches long. Sun to partial shade. Zones 3 to 9.

40. *Dianthus barbatus*. Sweet William. Annual, biennial, or short-lived perennial bearing flat, rounded clusters of red, white, pink, violet and bi-colored flowers. Full sun; light, well-drained soil that is slightly alkaline. Zone 6.

41. *Digitalis* spp. (mix of species).

Foxglove. Mixture of foxgloves that grow to 3 feet. Flower spikes produce a range of yellow to white, ¾- to 1-inch blossoms that appear in the spring and summer of the second year. Do not cover seed; light is required for germination. Germination takes 20 days. Zone 4.

42. *Echinops ritro*. Small globe thistle. Excellent 1- to 2-foot accent plant. Leaves are glossy-green above and wooly-white beneath. Spiny, blue 2- to 3-inch flower heads borne in midsummer. Full sun. Flowers can be dried. Zone 4. Limited supply.

43. *Gaillardia aristata*. Common blanket flower. Perennial that grows to 2½ feet. Leaves are often lobed and 8 to 10 inches long. Disc flowers are yellow or purple with yellow ray flowers, sometimes purple at the base. Zones 2 to 7.

44. *Hibiscus coccineus*. Scarlet rose mallow. Large, 6-foot perennial with 3-, 5- or 7-parted, palmately compound leaves. Flowers are deep red and have five 3-inch-long petals that open into a flat whorl. Full sun to light shade; well-drained soil. Germination takes 15 to 30 days. Zone 7. Limited supply.

45. *Hibiscus militaris*. Soldier mallow. Native perennial that grows 3 to 7 feet tall. Leaves somewhat heart-shaped and rounded at both ends. Flowers are borne singly and are pale pink to nearly white, with a crimson base. Grows on riverbanks and wetlands. Zone 6.

46. *Hosta* (mix of variegated cultivars). A mixture of large hostas whose green leaves are variegated with yellow, cream or white markings. Flowers are lavender. Rich, moist, well-drained soil; light to full shade. Zone 3.

47. *Hosta ventricosa*. (Formerly *H. caerulea*). Blue plantain lily. Showy, dark green leaves and loose racemes of 2-inch, bell-shaped, dark violet flowers, borne on 36-inch stems well above the foliage. Rich, moist, well-drained soil; light to full shade. Zone 3.

48. *Leontopodium alpinum*. Edelweiss. Silvery-white foliated plant from 6 to 12 inches in height. Tiny yellow flowers are surrounded by large, white bracts that make the flowers appear much larger. Flowers borne in midsummer. Full sun and sandy, well-drained, alkaline soil. Native to the mountains of Europe and Asia. Sow outdoors in early spring, or sow indoors and maintain a medium temperature of 55° F. Or sow following a 3-week period of cold stratification and maintain a medium temperature of 70° F. Do not cover seed; light is required for germination. Zone 5.

49. *Liatris* sp. Blazing-star. Perennial that grows 1 to 3 feet with stems rising from the center crowned with erect spikes of flowers opening from the top. Individual flowers are ¼ to ½ inch long. Each plant bears three to four spikes. Plant in moist rich soil with full to part sun. Zones 3 to 7.

Save this catalog to identify the seeds you have selected!

50. *Linum perenne*. Perennial flax. Plant that grows up to 2 feet tall. Sky blue, inch-wide flowers are borne on a multi-branched panicle from May to August. Full sun. Great for borders and rock gardens, but does not transplant well. Germination takes 20-25 days. Zone 4.

51. *Lunaria annua*. (formerly *L. biennis*.) Money plant, honesty. Biennial grown for its interesting, round, flat fruit, which is silvery and translucent once the seeds and valves (or coverings) have dropped. Flowers are purple or white, fragrant, and borne in clusters in spring and early summer. Plants to 3 feet. Full sun to partial shade. Sow outdoors in midsummer for flowering the following year, or sow indoors using general germination instructions for perennials.

52. *Lupinus* cvs. (mix of Russell hybrids). Lupine. Mix of lupines that mature at a height of 1 to 3 feet, with beautiful spikes

of various colors. Full sun or light shade. Best grown in areas with cool summers; will not tolerate heat and drought. Sow indoors or out following scarification treatment for hard seed coat. Germination takes 20 days. Zone 3.

53. *Malva alcea*. Hollyhock mallow. White to deep rose-flowered mallow with 1- to 2-inch flowers. Summer-blooming plant to 3 feet in height. Full sun, light shade. Easily grown in well-drained, average soil. Zone 4. Germinates in 5 to 10 days. Limited supply.

54. *Papaver nudicaule*. Iceland poppy. 1-foot plant with basal leaves and fragrant 1- to 4-inch flowers. Blooms are cup-shaped, usually single but sometimes double, and in shades of yellow, red, orange, rose, apricot and white. Borne from spring through summer. Sow outdoors in fall for germination the following spring or sow indoors and maintain a medium temperature of 55° F. Does not transplant well, do so with care. Zone 2.

55. *Papaver orientale* cv. Oriental poppy. Showy plant with white, yellow or pink flowers blooming in late May or June. Blossoms are up to 6 inches across, and plants reach a



height of 2 to 4 feet. Foliage dies down after blooming and reappears in fall. Full sun and well-drained, fertile soil. Sow indoors or out using general germination instructions for perennials, but maintain a medium temperature of 55° F during germination and be sure seed is completely covered; darkness is necessary for germination. Zone 2.

56. *Rudbeckia hirta* 'Goldsturm'. Black-eyed Susan. Biennial or short-lived perennial, can also be grown as an annual. Three-foot plant with 3-inch flower heads consisting of golden-yellow ray florets surrounding a brownish-purple "cone." Full sun. Flowers from late July to October. Zone 4.

57. *Scabiosa caucasica*. Caucasian scabiosa. Perennial that grows 1½ to 2½ feet. Flowers, usually blue, with flat heads about 3 inches across, appear in July and August. Full sun; moist, well-drained soil. Sow outdoors in the fall for bloom the following spring. Or sow indoors using general germination instructions for perennials. Germination takes 10 to 15 days. Zones 2 to 9.

58. *Sisyrinchium striatum*. Blue-eyed grass. Tender perennial to 30 inches in height with grass-like foliage and dense spikes of small, yellowish flowers blooming in summer. Native to Argentina and Chile. Self-sows. Full sun to light shade; well-drained soil. Germination takes 20 to 40 days. Zone 8.

59. *Veronica* cvs. (mix of cultivars). Bird's eyes. Summer-blooming plants bearing masses of blue or white flowers on erect stems. Height to 2 feet. Full sun. Zone 3.

60. *Yucca filamentosa*. Adam's needle. Large clumps of long, pointed, sword-like leaves topped in June and July with tall, erect stems bearing masses of white, drooping, bell-shaped flowers. Full sun and sandy, well-drained soil. Sow outdoors in early spring or sow indoors and maintain a medium temperature of 55° F. Germination takes 30 to 35 days. Zone 5.

Wildflowers For Sunny Meadows

All of the following plants make excellent additions to the sunny meadow or wildflower garden. Most are also perfect for a sunny border or a corner of your yard that receives a lot of sun. Some are great for cutting or drying, while others have edible parts. All are native to the United States. For best results, combine the information in "Germination for Perennials" on page 3 with the specific sowing instructions presented.

61. *Asclepias tuberosa*. Butterfly weed. Beautiful native perennial bearing clusters of orange flowers atop 2- to 3-foot plants. Will thrive in sandy, gravelly soil and in dry conditions because of deep root system. Difficult to transplant; sow outdoors where the plants are to grow, or sow indoors in individual pots.

Cultivating Wildflowers

Most wildflowers prefer a loose, well-drained soil, though many will tolerate heavier clays. Soil drainage may be improved by planting in raised seed beds or on a sloping hillside. You may want to add humus, leaf mold, or peat moss to the soil to improve quality. Hardy wildflowers generally do not need fertilizers, preferring a lean soil of gravel and sand.

A 2-week period of cold stratification will speed germination. Do not transplant pot-grown seedlings to garden until they are dormant in fall. Germination takes from 21 to 28 days. Zone 3.

62. *Chrysanthemum leucanthemum*. Oxeye daisy. Perennial that grows to 2½ feet with white disk flowers and yellow centers. Does well in partial shade or sun and blooms in late spring and early summer. Zones 3 to 7.

63. *Daucus carota*. Queen-Anne's-lace. Tap-rooted biennial with fernlike leaves, commonly used in meadow mixtures and found along highways, where it has naturalized in this country. White flowers are borne in a compound umbel from July to September. Used in dried flower arrangements. Adds grace to any natural setting, but can be invasive. Zone 3.

64. *Dipsacus fullonum*. (Formerly *D. sylvestris*). Common teasel. Six-foot biennial with thistle-like flower heads used in dried arrangements. Flowers are pale lavender. Full sun. Tolerates poor soil and dry conditions. Zone 3.

65. *Echinacea purpurea*. Purple cone-flower. Large, 4-inch flower heads consisting of dark reddish-purple "cones" of disk florets surrounded by drooping, light purple ray florets. Excellent plant for the sunny wild garden, the border, and for cut flowers. Full sun to light shade. Will tolerate dry soil and wind. Sow indoors; a 30-day period of cold stratification improves germination. Zone 4.

66. *Erigeron speciosus* var. *macranthus*. Aspen daisy, Oregon fleabane. Fibrous-rooted perennial that grows to 2½ feet. Uppermost leaves are ovate. Many clusters of blue or white flowers, 1½ inches across, borne June to July. Flowers somewhat resemble hardy asters. Zone 4 to 5.

67. *Eupatorium maculatum*. Joe Pye weed. Native 6- to 10-foot perennial with coarse 10- to 12-inch long leaves borne in whorls about the stem. Showy midsummer flower heads of purple tubular flowers borne in terminal clusters. Fast growing. Full sun; moist, marshy soil ideal. Zones 2 to 3.

68. *Eupatorium perfoliatum*. Boneset. Native rhizomatous perennial that grows to 5 feet. Stout, hairy stem and opposite leaves. White flower heads are borne in loose ter-

minal clusters. Full sun; moist soil. Zone 3.

69. *Ipomopsis rubra*. (formerly *Gilia rubra*.) Standing cypress. Unbranched biennial or perennial to 6 feet. Leaves are pinnately parted into filament segments about one inch long. Flowers are scarlet outside, yellow and dotted red inside. Native to South Carolina, Florida, and west to Texas.

70. *Linaria vulgaris*. Common toadflax, butter and eggs. Naturalized perennial that grows to 3 feet with linear leaves to 1¼ inches long. Flowers are yellow with orange and resemble butter and eggs. Plant is invasive and must be controlled. Zone 3.

71. *Oenothera missouriensis*. Ozark sun-drops. Perennial that grows to 1 foot and bears papery, yellow flowers 5 inches across from June to August. Showy and fragrant. Flowers open during the day. The stems tend to trail, and the tips point upward. Difficult to transplant; sow outdoors following general germination instructions for perennials. Zone 5.

72. *Papaver rhoeas*. Corn poppy, field poppy, Flanders poppy. Annual that grows to 3 feet. Form is erect, branched with spreading, bristly hairs. Leaves are 6 inches long. Flowers are cinnabar-red, deep purple, scarlet, or sometimes white. Native to North America.

73. *Ratibida pinnata*. Gray-headed prairie coneflower. Native perennial that grows to 4 feet. Produces drooping heads of yellow-toothed ray flowers with grayish, oblong disc flowers. Blooms throughout the summer. Full sun; very tolerant of dry soils. A 9-week period of cold stratification will hasten germination. Zone 3.

74. *Saponaria officinalis*. Soapwort, bouncing Bet. Rhizomatous. 3-foot perennial bearing terminal clusters of white or pale pink flowers. Blooms throughout the summer, especially at night. Naturalized in the United States. Roots have been used medicinally; sap makes a lather. Can be invasive. Tolerant of poor soils. Zone 3.

75. *Thermopsis caroliniana*. Carolina or false lupine. Pea family member to 5 feet in height. Bears erect racemes of yellow pea-like flowers in mid-summer. Likes sun and deep, well-drained soil. Very deep-rooted. Sow seed outdoors in fall for bloom the following year. Zone 7. Limited supply.

Bulbous & Tuberous-Rooted Plants

We have received seed of a selection of bulbous and tuberous-rooted plants this year. Although these plants generally require a little more patience to grow from seed, they are certainly worth the time and trouble. For best results, use the general germination instructions for annuals for the plants that are hardy in Zones 9 and 10, and the instructions for perennials for the other plants. Combine this information which appears on page 3 with the specific information presented below.

76. *Allium aflatunense*. Bulbous perennial bearing globe-like, densely flowered umbels. Light violet flowers with yellow anthers are borne on a 2½ to 5-foot scape. Excellent for drying or use as cut flowers. Full sun; well-drained soil. Sow outdoors in fall or sow indoors following a 1 month period of cold stratification. Will take several years to bloom from seed. Zone 5.

77. *Gladiolus* cvs. (mix of cultivars). Large-flowered hybrids to 2 feet or more in height. Foliage is sword-shaped. The 6-inch flowers come in a range of colors. Full sun; deep, well-drained, slightly acid soil. Sow indoors in late winter. Germination takes 20 to 40 days. Cormels will form first year; plant will flower in 2 or 3 years. Hardy to Zone 9. Corms should be lifted before frost and stored over winter.

78. *Iris* cvs. (mix of tall bearded cultivars). Mix of many colors of tall bearded iris that bloom primarily from May to June. Some even bloom twice in the same growing season. Old World. Full sun; well-prepared, well-drained soil. Follow general germination instructions for perennials. Germination takes 21 days or more. Zone 6.

79. *Iris versicolor*. Blue flag. Native Eastern iris bearing violet or lavender flowers with boldly-veined sepals on branched, 3-foot stems. Sow indoors or out following a 6-week period of cold stratification. Germination takes 3 to 5 weeks. Zone 3.

80. *Lilium* cvs. and spp. (mix of cultivars and species). A variety of lilies. Full sun; fertile, slightly acid soil that is evenly moist but well-drained. Sow indoors following a 45-day period of cold stratification. Germination takes 20 to 40 days, and plants will take several years to bloom from seed. Zone 4.

81. *Lilium formosanum*. Formosa lily. Bulbous perennial that grows to 6 feet and bears white, funnel-shaped flowers that are purple on the outside. Flowers appear from August to October. Fragrant flowers are borne 1 to 10 per stalk. Native to Formosa. Very susceptible to virus diseases. Sow outdoors or inside; germination takes 30 days or more. Zone 6.



82. *Lilium washingtonianum*. Washington lily. Four-foot lily with funnel-shaped flowers that are white, fading to lilac. Bears as many as 20 flowers per stalk. Full sun and fertile, light, slightly acid soil with perfect drainage. Difficult to cultivate. From Sierra Nevada mountains. Sow indoors following 40-day period of cold stratification. Germination takes 20 to 40 days. Zone 6. Limited Supply.

83. *Watsonia* sp. Bugle lily. Bulbous plant of the Iris family with sword-shaped leaves. Cultivated like gladiolus, in loamy soil and full sun. Blooms in the summer; requires plenty of moisture during its blooming period. Sow indoors in late winter. Germination takes 20 to 40 days. Zone 9.

Preparing the Medium

To control damping-off, many gardeners and professional horticulturists soak seed flats in fungicide before sowing. Use a fungicide that has been especially formulated for this purpose. Wait 24 hours after treatment before sowing seed.

HOUSE, GREENHOUSE & TROPICAL GARDEN PLANTS

All of the plants in this section are suitable for Zone 10 gardens. The smaller species can be grown indoors or in greenhouses in areas where they are not hardy. Many of the plants listed in "Bulbous and Tuberous-Rooted Plants" are also tender perennials that can be grown out-of-doors in Zones 9 and 10. Follow the "Germination for Annuals" instructions unless otherwise indicated.

84. *Dioscorea batatas*. Cinnamon vine. Vine that has tuberous roots to 3 feet long, climbing and twining clockwise. Leaves are opposite and ovate to oblong. Fruit is broader than long with seeds encircled by wing. Widely cultivated for food in the tropics. Root hardy in Zone 5.

85. *Echinocereus* sp. Hedgehog cactus. An unnamed species of cactus native to Mexico and the southwestern United States. Bears solitary flowers and globose to cylindrical stems. Sow following general germination instructions for annuals, but do not cover seed; light aids germination. Zone 9.

86. *Lophocereus schottii*. Whisker cactus. An erect branching cactus that grows to 15 feet tall and has a trunk 8 inches thick with 5 to 7 ribs. Short gray spines are conical and swollen at the base. Flowers are pink and 1½ inches across. Fruit is 1 inch in diameter. Native to south Arizona and west Mexico.

87. *Mimosa pudica*. Sensitive plant. Greenhouse or pot plant with fern-like leaves and mimosa-like, pink flowers in late summer. Leaves are sensitive and close when touched. Height 3 feet. Full sun and rich, well-drained soil. Keep moist; likes high humidity. Sow indoors anytime. Cover seeds; darkness required for germination. Maintain medium temperature of 70° to 80° F. Zone 9.

88. *Opuntia polyacantha*. Plains pricklypear. Cactus that grows to 6 inches and forms a nice clump. Joints are round and usually less than 4 inches wide with few spines. Flowers are yellow, tinged on the outside with red, and 2 inches wide. Can tolerate very dry soils, and is good for rockeries.

89. *Pachycereus pringlei*. Giant Mexican cereus. A tree-like cactus that grows to 70 feet and has a trunk two feet in diameter. Eleven to 17 ribs; areoles are a felty brown with spines missing in mature trees. White flowers are ill-smelling and 3½ inches long. Native to Mexico.

90. *Pritchardia pacifica*. Fiji fan palm. Tropical tree that grows to 30 feet; trunk to 1 foot in diameter. Its round leaves can grow to over 4 feet long. Flowers are insignificant. Native to the Fiji Islands. Likes sandy peat and constant humidity. Germination is slow;

may take one to several months. Zone 10b. Limited supply.

91. *Spathodea campanulata*. African tulip tree, flame-of-the-forest. Showy, 70-foot evergreen tree bearing scarlet, 5-inch flowers. Full sun; fertile, well-drained soil. Germination period unknown. Zone 10b.

92. *Strelitzia reginae*. Bird of paradise. Tropical house plant to 3 feet, sporting large,

stiff, spear-shaped leaves with lighter-colored mid ribs. Unusual, showy, bird-like flowers colored orange or yellow, each with a dark blue "tongue." Sow fresh seeds immediately after soaking for 2-4 days in very warm water, changing the water each day. Germination from 30 days to one year, with a medium temperature at a constant 85-90° F. Grows best in moist rich soil in full sun to part-shade. Allow soil to dry between waterings. Zone 10.

TREES & SHRUBS

We have a variety of woody plants available this year—shrubs, small and large trees, and vines. Some are valued for the showy flowers they bear, others for their brightly colored fruit, and some for their spectacular fall color. These plants can be started from seeds following the "Germination for Trees and Shrubs" instructions on page 3, unless otherwise indicated in the individual plant descriptions.

93. *Acer ginnala*. Amur Maple. Beautiful shrub or small tree to 20 feet. Bears small panicles of yellowish-white flowers in spring and has small leaves. Samaras turn red in autumn before foliage turns brilliant scarlet. Sow outdoors in fall and mulch for protection. Or, sow indoors in spring following a scarification treatment for hard seed coat, a 1- to 2-month period of warm, moist stratification, followed by a 3- to 6-month period of cold stratification. Zone 5.

94. *Alnus glutinosa*. Black alder. Eighty-foot tree recommended for its ability to grow in wet soils. Prefers cool climates. Sow seed ½ inch deep after a 4-month period of cold stratification, followed by 3 days in freezer. Zone 4.

95. *Arctostaphylos uva-ursi*. Common bearberry, mealberry, hog cranberry, kinnikinnick. An evergreen shrub that is prostrate and creeping. Shiny leaves are 1 inch long. Flowers are white and pink. Bear bright red fruit late spring, early summer. Used for tanning in Sweden. Zone 2.

96. *Athanasia parviflora*. Evergreen shrub to 3 feet in height. Finely divided foliage; new growth is silver-green. Umbels of medium yellow flowers appear at tips of branches in late spring. Full sun; average soil with good drainage. Native to South Africa. Difficult to germinate.

97. *Betula ermanii*. Birch. Deciduous tree to 60 feet in height. Native to northeastern Asia and Japan. Grayish-white to reddish bark that flakes and peels. Leaves triangular-oval.

Moist, sandy soil. Sow in sandy soil following a 40- to 70-day period of cold stratification. Zone 4.

98. *Betula papyrifera*. Canoe or paper birch. Popular 100-foot species with papery white bark that exfoliates. Leaves are rounded at both ends and broadest below the middle. Golden-yellow autumn color. Less susceptible to bronze birch borer than European white birch, *B. pendula*. Follow germination instructions for *B. ermanii*. Zone 2.

99. *Calycanthus floridus*. Carolina allspice. Deciduous, 10-foot shrub with 5-inch leaves and 2-inch, dark reddish-brown flowers. June-borne flowers have a spicy fragrance when crushed. Rich, well-drained soil. Sow following a 3-month period of cold stratification. Zone 4.

100. *Cassia alata*. Ringworm cassia, candlestick senna. Shrub that grows to 8 ft. with large leaflets in 8-14 pairs and 2½ inches long. Bears showy racemes of deep yellow flowers. Use general germination instructions for annuals, but requires scarification treatment for hard seed coat before sowing. Zone 8b.

101. *Chionanthus retusus* var. *serrulatus*. Asian fringe tree. Deciduous, 20-foot tree bearing small, white flowers in dense, showy, 4-inch panicles. Blooms in early summer. Full sun; moist, sandy loam. Very difficult to germinate. Requires a warm stratification period followed by a 30-day period of cold stratification before sowing. Germination takes up to one year. Zone 6.

102. *Cladrastis lutea*. Yellowwood. Deciduous, 50-foot tree bearing 10 to 12-inch panicles of fragrant flowers in early summer. Bark is beech-like. Full sun to partial shade; average soil with good drainage. Sow outdoors in fall, or sow indoors following a stratification treatment for hard seed coat and a 3-month period of cold stratification. (A scarification treatment of both nicking the seed coat and soaking in nearly boiling water may

help break dormancy.) Day temperatures of 86° F and night temperatures of 68° F are recommended. Germination takes 1 to 2 months. Zone 5.

103. *Gleditsia triacanthos*. Honey locust, sweet locust. Deciduous tree that grows to 140 feet with flattened spines, simple or three branched to 4 inches long on trunks and branches. Leaves are pinnate with leaflets (10 to 15 pairs) to 1½ inches long.

104. *Gymnocladus dioica*. Kentucky coffee tree. Deciduous, 100-foot tree bearing foot-long racemes of greenish-white flowers in May and June. Seeds, which are borne in 10-inch, red-brown pods, were once used as a coffee substitute. Full sun; average soil. Sow indoors following a scarification treatment for hard seed coat. Alternate medium temperature between 85° F days and 70° F nights. Germination takes 20 to 30 days. Zone 6.

105. *Koelreuteria paniculata*. Golden-rain tree. Small, deciduous, 16- to 35-foot tree. Bears loose, terminal panicles of attractive yellow flowers from July to September. Flowers are followed by fascinating, triangular, balloon-like, 1½- to 2-inch seed capsules held on tree through fall. Sow outdoors in fall or sow indoors after a scarification treatment for hard seed coat followed by a 1-month period of cold stratification. Germination takes 20 to 45 days. Zone 5.

106. *Kolkwitzia amabilis*. Beautybush. Deciduous shrub that grows to 15 feet. Leaves are ovate and up to 3 inches long. Pale pink flowers bloom in early June. Foliage turns a beautiful reddish color in autumn. Native to central China.

107. *Lespedeza bicolor*. Bush clover. Shrub that grows to 10 feet with leaflets that are 1½ inches long and pale beneath. Flowers are purple in erect racemes longer than leaves. Zone 4.

108. *Lonicera tatarica*. Tatarian honeysuckle. Upright vigorous shrub that grows to 9 feet. Bears very fragrant pink to white flowers and red or yellow fruits. Will attract birds. Sow seed in the fall, or sow indoors following a 2- to 3-month period of cold stratification. Zone 3.

109. *Magnolia grandiflora*. Southern magnolia. Evergreen tree with large, 5- to 8-inch, glossy-green leaves. Huge, 8-inch white flowers borne in summer. Interesting cone-like fruit in fall. Sow outdoors in fall or indoors following 3- to 4-month stratification. Germination takes 1 to 2 months. Zone 7.

110. *Magnolia virginiana*. Sweet bay magnolia. This tree, which grows to 60 feet, is one of the most fragrant of all the magnolias. Leaves 3 to 5 inches, whitish on the undersides. Bears fragrant white flowers in late June and July. Leaves are evergreen in the south and deciduous in the north. Sow seed as soon as possible after a 4-month cold stratification. Germination takes 30 to 60 days. Zone 5.

Transplanting Seedlings

Transplanting, one of the most crucial events in a plant's life, should be done as gradually as possible. Harden off seedlings by exposing them to brighter light and lower humidity after they have produced their second set of true leaves. A few days before you plan to transplant, move the plants outdoors for a few hours per day.

111. *Myrica pensylvanica*. Bayberry. Deciduous to semi-evergreen shrub with aromatic foliage. Gray, waxy berries, which appear on female plants only, are ¼ inch in diameter and are used in making bayberry candles. Tolerant of salt and infertile soil. Sow outdoors in the fall, or sow indoors after a 3-month period of cold stratification. Germination takes 5 months. Zone 4.

112. *Parkinsonia aculeata*. Jerusalem thorn. Spiny, 20-foot tree with deciduous, fern-like foliage and large, yellow flowers borne in racemes. Branches are green. Full sun. Zone 8.

113. *Ptelea trifoliata*. Common hop tree, water ash. Small tree to 25 feet in height. Has chestnut-brown bark and aromatic foliage. Bears greenish-white flowers in spring or early summer. Likes shady locations and porous soil. Sow outdoors in fall, or sow indoors in spring following a 3- to 4-month period of cold stratification. Zone 5.

114. *Quercus kelloggii*. California black oak. Deciduous tree that grows to 80 feet. Dense and round-headed with broad branches. Does well in dry, sandy or gravelly soils; native to the Pacific Coast. Sow indoors or out following 6 month or longer period of cold stratification. Zone 8.

115. *Rhodotypos scandens*. Jetbead, white kerria. Deciduous shrub that grows 3 to 6 feet when cultivated, but can grow to 15 feet in the wild. Leaves are slender and pointed,

from 1½ to 3 inches long. Two-inch flowers are white.

116. *Syringa pекinensis*. Peking tree lilac. Beautiful native of China reaching a height of 15 feet. Large sprays of yellowish-white flowers and attractive, purplish, peeling bark. Freely branching. Sow seed outdoors in fall. Cover with ¼ inch of soil and mulch for winter. Or sow indoors following a 1-month period of cold stratification. Zone 5.

117. *Syringa reticulata*. (Formerly *Syringa amurensis*). Japanese tree lilac. Shrubby tree to 30 feet in height. Bears loose, 12-inch panicles of yellowish-white, fragrant flowers. For germination instructions, see *S. pекinensis*, #116. Zone 4.

118. *Viburnum sieboldii*. Arrowwood. Deciduous shrub that grows to 10 feet tall with leaves to 6 inches long, coarsely toothed and shining above. Undersides are paler and hairy. Creamy-white flowers are in panicles 4 inches long. Fruit is pink, becoming blue-black as berries mature. Native to Japan. Zone 5.

Vines

119. *Aristolochia elegans*. Calico flower. Slender, woody twining vine that produces purple and yellow flowers resembling small pipes. Native to Brazil and grows very vigorously. Sow seed indoors following a 3-month period of cold stratification. Zone 9.

120. *Campsis radicans*. Trumpet vine. Showy, bright orange-flowered vine. Trumpet-shaped blooms are 2 inches across and 3 inches long and appear in late summer. Full sun; rich, fertile soil. Sow indoors using general germination instructions for trees and shrubs, following a 2-month period of cold stratification. Germination takes 1 month. Zone 5.

121. *Celastrus scandens*. American bittersweet. Deciduous, climbing or twining shrub that will grow to 25 feet with support. Beautiful, bright orange fruit useful in indoor arrangements and attractive to birds. Full sun to partial shade; ordinary soil. Male and female plants necessary for fruit production. Sow seed outdoors in fall, or sow indoors following a 2- to 6-month period of cold stratification. Cover seed to a depth of ½ inch with a mixture of ½ sand and ½ sawdust. Germination takes 20 to 36 days. Zone 4.



VEGETABLES

Our vegetable selections this year include tasty plants that are relatively simple to grow, and some that are ornamental as well. All should be sown following the "General Germination Instructions for Annuals" on page 3 combined with the specific directions accompanying the individual plant description.

Save this catalog to identify the seeds you have selected!

122. Asparagus 'Martha Washington'. Garden asparagus. Long-lived perennial that produces an edible vegetable for harvest in the spring. Requires about 4 years to reach maturity from seed. Good, deep soil; proper fertilization and disease and pest control. Sow indoors or out following general germination instructions for annuals. The following spring dig up roots and select the most vigorous for planting in a permanent location.

123. Beet 'Early Wonder'. Smooth-skinned, uniform beet, semi globe-shaped, about 2½ to 3 inches across. Used for table, canning and pickling. Sow seeds outdoors in the spring as soon as soil is workable. (Prepare garden soil to an 8-inch depth.) Full sun; well-drained, sandy loam soil. Harvest 55 days from germination.

124. Cabbage 'Walking Stick'. An interesting plant that in mild climates grows to 7 feet the first year and almost 15 feet the second year. A head will form 5 to 7 feet up the stalk in the fall. The plant will overwinter in areas with mild winters (Zone 9). Native to western and southern Europe, and grown in England's Channel Islands. Can be sown in spring or August and thrives in almost any well-drained garden soil. The stalk can be dried and glazed, then used as a walking stick.

125. Carrots. Baby and mini. Mature in 68 days. Small, deep orange to red, and ball-shaped. They grow well and do not need lots of deeply prepared soil as do other root crops. Tender and sweet tasting. Limited supply.

126. Celtuce. A *Lactuca sativa* or lettuce hybrid, parentage unknown. Young foliage is excellent in salads, and heart of central stems tastes like celery. Central stem can be eaten raw or cooked. Full sun; average, well-drained soil. Sow outdoors in early spring for spring crop, or sow in late summer for fall crop. Good winter crop for Zones 9 and 10. Seventy-five days from sowing to foliage harvest; 90 days to stalk harvest.

127. Chicory. *Cichorium intybus*. Perennial vegetable forming tight heads that are cabbage-like in appearance. Foliage has sweet, tangy taste and is excellent in salads. Slow



to bolt in warm weather. Full sun and average, well-drained, evenly moist soil. Sow outdoors in June or July for fall harvest. Zone 5.

128. Corn. Red Dent. Edible, large-eared corn that turns dark red if allowed to remain on plant to maturity. This is a rare variety of

red, open-pollinated dent field corn. It has white kernels until it begins to age, at which time the kernels turn red—beginning at their tips. This is a good edible corn, especially when in the soft white stage. Very colorful and ornamental. Plant at a depth of 1½ inches in several rows 24 to 30 inches apart. Within rows, space plants 10 to 14 inches apart.

Herbed Dressing for Poached Baby Vegetables

- ½ cup olive oil
- ½ cup vegetable oil
- ¼ cup fresh dill leaf
- 2 tablespoons honey
- ⅓ cup chopped fresh basil
- ¼ teaspoon pepper
- 1 teaspoon salt
- 1 teaspoon dry mustard
- 1 tablespoon Worcestershire sauce
- ⅓ cup vinegar
- 2 cloves garlic, chopped

Combine and shake together well. Let flavors blend. Use to dress hot poached baby vegetables, which can then be served either hot or at room temperature. Makes about 2 cups.



Baby Carrots with Ginger and Sage Butter

- 2 pounds baby carrots, scrubbed clean
- ¼ pound unsalted butter (1 stick)
- 1½ tablespoons brown sugar
- 2 tablespoons freshly chopped ginger
- juice of ½ lemon
- ¼ teaspoon salt
- 1 large clove garlic, mashed
- 1 tablespoon freshly chopped sage (or 2 teaspoons dried)

Poach carrots in water or chicken stock until just tender. Melt butter and add all other ingredients, then add the drained carrots and gently sauté 2 to 3 minutes to blend flavors. Serves 6.

Creamy Parsley Salad Dressing

- ½ cup salad oil
- ⅓ cup fresh parsley leaves, minced
- 3 scallions, finely chopped
- ½ teaspoon salt
- ½ teaspoon freshly ground black pepper
- 2 tablespoons sour cream or fresh plain yogurt

Combine all ingredients except sour cream in food processor, blender, or bowl and mix well. With machine running, slowly add sour cream, blending thoroughly. Refrigerate in an airtight jar. Makes about 1 cup.

Classic Fresh Pesto Sauce

- 3 cups loosely packed fresh basil leaves, washed and drained
- ½ cup chopped fresh parsley
- 3 large cloves garlic
- ½ cup pine nuts (or pecan meats)
- 1 cup freshly grated Parmesan or Asagio cheese (use fresh cheese)
- 1 teaspoon fresh or ½ teaspoon dried oregano
- ½ teaspoon fresh ground pepper (or to taste)
- ½ to ⅔ cup fruity olive oil
- salt to taste

Combine all the ingredients in a food processor or blender, adding enough olive oil to make a thick, smooth sauce. Add salt to taste. Add to fresh hot buttered pasta. Toss to combine and serve immediately. Serves 4.

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Gardener's Check List

January is the time to curl up with a seed catalog — a good choice is the AHS Seed Program Catalog included in this issue — and plan next season's garden. But despite the quietness of the season in many areas of the country, there are still quite a few garden chores to perform. To get you started, we've contacted gardening experts across the country; they provided us with a check list of tasks to help you get a jump on the busy upcoming season.

Northeast

- Don't throw away that leftover Christmas tree. Cut the branches and use them for winter protection in the garden, or secure the tree upright and use it as a bird feeder and shelter.
- Examine the limb structure of your shade trees. Remove dead, diseased, and storm damaged branches before they find their way onto someone's head.
- Start the pruning of grapes, but wait until late winter to prune fruit trees, blueberries, and raspberries.
- Remove cuttings from overwintering stock plants of geranium, coleus, and impatiens for a supply of bedding plants to set out in the spring.
- Gather together seed starting supplies. Seeds of celery, celeriac, sweet Spanish onions, parsley, anise, fibrous rooted begonias, snapdragons, verbenas, geraniums, and petunias can be sown indoors. Test the seeds' viability by germinating them between layers of moistened paper



towels; if germination levels are less than fifty percent, it's time to buy new seed.

- Tramp down the snow around fruit trees to discourage rabbits from nibbling on the bark.

—Ron Kujawski,
*State Horticulture Specialist,
University of Massachusetts
Cooperative Extension, Amherst,
Massachusetts*

Southeast

- If you haven't done so, finish soil preparation for next spring's garden by laying manure and dolomitic limestone on the soil surface.
- Sow seed indoors for early vegetable crops.
- Prune deciduous trees and shrubs while they are dormant to minimize stress and bark damage.
- Take soil samples and submit them for analysis. This allows time to apply fertilizer or lime before the spring growing season.

- Move large shrubs. Get as much of the root system as possible and prune the plant back about one-fourth to compensate for root loss.
- Protect tender vegetation when a freeze threatens. Use additional mulching, sheets, blankets, or cardboard boxes.
- Plant balled-and-burlapped and bare-rooted plant material. Containerized nursery stock can also be planted. Move plants from one location to another in the landscape.

—Maurice E. Ferree,
Extension Horticulture Department,
University of Georgia,
Athens, Georgia

Mid-Central

- Apply fungicide sprays to turf at midwinter thaw for snow mold control.
- Remove heavy snows from limbs of evergreens to prevent breakage.
- Check bulbs, corms, and tubers which are stored; discard those that show signs of disease. Allow for good ventilation.
- Plan your garden. Remember, it takes at least two hours per week to care for a 20 x 50-foot garden, not including harvesting and planting.
- Order vegetable seed and fruit plants to ensure that you get the desired varieties.

—Michael N. Dana,
Extension Specialist, Home and
Urban Horticulture, Purdue
University, West Lafayette, Indiana

West

- Perform minor pruning of trees and shrubs, especially if there's been storm damage.
- Mulch bulbs, if you forgot to do so, to prevent early emergence, especially on the south sides of buildings.
- Cut back the tops of perennials, clean debris.
- Check plants on indoor windowsills. Low winter sun angles may cause scorching. Compensate for low winter humidity by placing indoor plants on shallow trays on gravel and water.
- Keep Christmas poinsettias out of drafts and avoid overwatering. This will preserve them into spring.

—James Feucht,
Extension Landscape Plant Specialist,
Colorado State University, Fort
Collins, Colorado

Southwest

- Have soil tested by your county extension agent. Avoid adding too much phosphorus, which causes iron deficiency.
- Plant onion seeds in greenhouses in early January for setting out in early March.
- Plant seeds of cold-tolerant plants such as lettuce in the third week in January for setting out in early March. Use a peat or good home compost mix.
- Sow English peas by mid- to late February.
- Bed down roots of sweet potato in the greenhouse by late February.
- Plant bare root trees and shrubs, making sure to irrigate them regularly. Wrap trunks in commercial wrap to protect from sun scald and temperature fluctuation.
- Water all woody plants regularly to prevent serious winter moisture loss.
- Prepare beds for summer annuals and perennials, incorporating several layers of peat or shredded pine bark. "Gin trash" from cotton gins can be used, but must be composted to kill diseases.
- Examine narrow-leaf conifers for bagworm bags.
- Plant bare root roses. Mulch heavily around base of canes to protect from freezing and desiccation.
- Prune summer-flowering trees and shrubs in late February (do not prune spring-flowering trees and shrubs).

—Roland Roberts,
Extension Specialist, Texas A & M
University, Lubbock, Texas

Northwest

- Plant fruit trees.
- Take hardwood cuttings of deciduous ornamental shrubs and trees.
- Use dormant sprays of lime sulfur or copper fungicide on roses for general disease control.
- Place windbreaks between cold, drying winds and foliage of landscape evergreens to prevent windburn.
- Prune holly trees.
- Propagate split-leaf philodendrons and other woody long-stemmed indoor plants by air-layering.

—Ray McNeilan,
Extension Agent, Oregon State
University, Portland, Oregon

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New Gardening Publications

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• **Herbal Delights.** This gentle classic, a reprint of Mrs. C. F. Leyel's 1937 herbal, touches on all aspects of enjoying herbs, from the literary to the purely practical. Each plant is identified with a botanical name, the name it is known by in various languages, and a reference from literature. Following this are a description of the herb, historic uses, and recipes both culinary and medicinal. The book is elegantly subtitled *Tisanes, Syrups, Confections, Electuaries, Robs,*

Juleps, Vinegars, and Conserves. By C. F. Leyel. Faber and Faber, 50 Cross St., Winchester, MA 01890. Publisher's price: \$7.95.

• **Andersen Horticultural Library's Source of Plants and Seeds.** This is the first published edition of a proposed series compiled by the staff of the Andersen Horticultural Library at the University of Minnesota; its intent is to match the availability of specific plants with gardeners and horticulturists who are seeking them. The list is broad (over 30,000 entries), though it is not ex-

haustive, and includes listings for trees, shrubs, vines, perennials, herbs, annuals, vegetables, and fruits. (There are few entries for houseplants and orchids.) Sources have been selected from 200 nurseries, and an effort has been made to cover a broad geographic area. Plants are listed under their scientific name, with a cross reference of common names and a source list of nurseries where the plant is available. Compiled by Richard T. Isaacson. The Andersen Horticultural Library, 3675 Arboretum Drive, Box 39, Chanhassen, MN 55317. Publisher's price: \$29.95.

River Farm Takes Center Stage

Recent visitors to the American Horticultural Society's headquarters have had to duck spotlights and dodge camera crews as River Farm took a leading role in both a feature film and a series of local holiday television spots. Moviegoers who saw the film *No Way Out* may have noticed the familiar sweeping drive and majestic tulip tree that frame River Farm's stately front entrance; parts of the film were shot here in 1986 for release last year.

This stellar performance was followed by a television encore last fall, as River Farm's eighteenth-century elegance became the backdrop for holiday greetings from the cast and crew

of WJLA-TV 7, Washington's local ABC affiliate. Red bows and evergreen branches from the garden were up in the parlor before Thanksgiving, and even the weather cooperated, with nippy temperatures and a premature snowfall to add to an early holiday spirit. Local celebrities Renee Poussaint, Paul Barry, Susan King, Frank Herzog, Fred Knight, and Robin Chapman, along with families of both cast and crew, baked cookies and hung holiday glitter as the cameras rolled, shooting footage to be broadcast in the weeks before Christmas. The consensus of all: River Farm is living proof that photogenic charm does, indeed, improve with age.

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