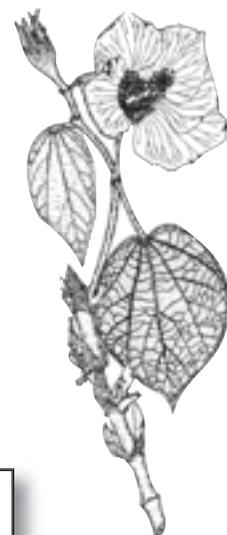




BULLETIN
THE CALIFORNIA HORTICULTURAL SOCIETY
San Francisco County Fair Building
Ninth Avenue at Lincoln Way
San Francisco, California 94122
March 15, 2004



4:00 PM Botanical gardens walk with speaker at Strybing Arboretum. Parking is available behind the San Francisco Co. Fair Building and on 9th Ave.
 5:30 PM NO HOST Dinner will be at Park Chow Restaurant, 1249 Ninth Ave., San Francisco.
7:15 PM Meeting will be held at Strybing Arboretum in the San Francisco County Fair Building at 9th Avenue and Lincoln Way

***Guest fee \$5.

Coming Programs

Co-sponsored with **Strybing Arboretum Society**
 Monday, March 15, 2004

“Plant Life in the Hawaiian Islands”
Vanishing Natives
 &
Unusual Exotic Ornamentals grown in Hawaii

Presented by
Robert Gustafson, Emeritus Collections Manager, Department of Botany, Natural History Museum of Los Angeles County. The speaker is the author of the award winning book: ‘Plants & Flowers of Hawaii’. The author spent more than fifteen years in Hawaii photographing plants and flowers for this beautiful book. The first half of the program will be a botanical history of Hawaii and the second half will be oriented to horticulture.

The Plant Drawing each month provides an important source of funds for the Grants and Scholarships Program. In March, the drawing will include donations from the **Moraga Garden Center** in Moraga, courtesy of Ken Murakami and **Strybing Arboretum & Botanical Gardens**, courtesy of Dr. Don Mahoney. Our appreciation to **Bancroft Gardens** courtesy of Brian Kimble; ‘**Desert to Jungle Nursery**’, courtesy of Gary Hammer and to **Strybing Arboretum**, courtesy of Dr. Don Mahoney for the outstanding plants donated for the February meeting.

SAVE THESE DATES: April 17-18, 2004
California Horticultural Society’s 10th Annual Plant Sale.
 Strybing Arboretum in the San Francisco County Fair Building.
Rare and Wonderful Plants

Saturday, April 17, 2004 6:00-9:00PM – Members ONLY
 Silent Auction of Selected Plant Treasures! Hundreds of Plants for Sale! Refreshments! (Memberships available at the door). Admission \$5.00
 General Sale, Sunday, April 18, 2004 – 10:00 AM to 2:00PM
 Our Sale has become one of the Bay Area’s premier sales owing to the talents of its many members. Volunteers are needed to assist in this special event.
 For information – call Elsie Mueller 800-884-0009

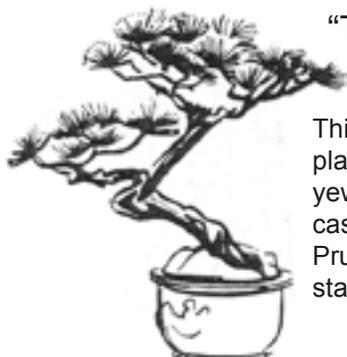
April 19, 2004

“The Art of Espalier, Topiary, Bonsai and Pruning Basics”

Presented by

Ted Kipping – Consulting Arborist & Certified Arborist

This two section lecture will look at unique solutions worldwide for controlling woody plant growth in artistic imaginative ways. Included are: French parterres; sheared yews in England; pleached hornbeams in France; free- standing espalier and cascading espaliers; “Arcuate” style of espaliers in England; pollarded trees; Cloud Pruning; Bonsai-Pots with Panache. Bring all your best pruning questions. Ted will stay after the program until they are all answered.



President's Letter

by Bruce Peters

Wow. I just have to start out by saying how great the "new" County Fair Building is! The long-awaited and highly anticipated acoustical upgrades are finally finished and are a complete and unmitigated success. If you're one of the people who stopped coming to the meetings after we left the Morrison Auditorium, you've got to check it out. Not only do the upgrades make it super easy to hear what's going on, they totally improve the look of the room, too! The whole place is visually warmer and (you know I like this next part) friendlier than it's previous incarnation as a harsh, echo-loving concrete cell. It's one of those things you have to experience to understand so come by to our next meeting on March 15 and hear about Hawaii in style.

OK, on to business. Last month I asked how to make the meetings more open and welcoming and we received some great suggestions which we'll be implementing in the (near) future. Thanks to all who gave their ideas and to those that greeted me so grandly! Keep those suggestions coming in.

This month I'm tackling a vaguely related topic. I've been involved with Cal Hort for about 10 or 11 years and have

slowly become ingrained into a cabal of sorts. It seems that the vast majority of Cal Hort tasks get done by this tiny minority of people. Now, in and of itself, that's not such a bad thing—most non-profits seem to work that way—but I feel it could be limiting our Society. Many have been the problems in my past that have seemed unsurmountable until someone just looked at me and, off the top of their head, came up with the most obvious solution that, for whatever reason, was beyond my ability to see.

I would like to apply this thinking to Cal Hort. It's not that I have anything against our little oligarchy, I just want to spread the wealth. If the 'Volunteer Corner' doesn't hold something that interests you, look online at our Committee List (soon to be created) and contact the Chair of that committee. If you've still not found something you'd like to do, let one of the Board members know.

We have tons of potential in our diverse membership but you are the key we need to exploit that potential to it's fullest and allow our Society grow.

Cal Hort Annual Plant Sale is April 17 & 18

Pot something up today!



Botanical Tours

January 20–February 2, 2004

Drakensbergs—a floral treasure—South Africa in Summer. In support of The Botanical Society of South Africa for flora conservation.

May 11–23, 2004

Botanical Excursion in Eastern Macedonia & Thrace (Northeastern Greece) with noted greek botanist George Sfikas & Richard Turner. A *Pacific Horticulture* tour.

May 16–June 3, 2004

Botanical & Cultural Treasures of China's Sichuan & Yunnan Provinces. Escorted by Kristin Yanker-Hansen in support of California Horticultural Society. www.calhortsociety.org for full itinerary.

October 11–27, 2004

Wildflowers, Gardens, Natural History and Fjordland of Chile at the Peak of Springtime Bloom with noted horticulturist and Landscape Architect Professor Wes Conner. In support of Strybing Arboretum Society.

For information please call (800) 624-6633 or visit www.geostartravel.com.

Volunteer Corner

Being a volunteer-run organization, Cal Hort is always in need of people with various skills and talents to help out. Look below to see how you can help our Society to grow!

Hospitality Committee: Tasks include showing new members the different areas and aspects of the monthly meetings. The only pre-requisite is having attended one previous meeting. *We really need people here!* Contact Renee (vicepresident@calhortsociety.org) or Diana (lambeaux@pacbell.net) for info.

Open Garden Coordinator: We have some gardens set up in SF in June but would love to add more! Contact Renee (vicepresident@calhortsociety.org) if interested in opening your garden or even to suggest someone else's.

Newsletter: The *Bulletin* is always happy to accept stories, articles or fun garden-related tidbits. If you would like to start a column, write something or have just run across an interesting item, share it with the rest of us! Contact Bruce at editor@calhortsociety.org or (415) 824-1833.

Website: Do you have any web-related skills, however rudimentary? We need someone to help make monthly updates to our popular site. Contact bruce@calhortsociety.org.

February Plant Forum by Don Mahoney

"A picture is a worth a thousand words." Fully believing the old adage, color photos are available on our website at www.calhortsociety.org in the 'Plant Forum' section.

1. *Impatiens mackeyana*

BALSAMINACEAE

Don Mahoney, grown at Strybing

This is another of the recently available species of *impatiens* from Africa. This plant is not hardy outdoors in the wintertime but is well worth growing as a houseplant. It has rather large, deep green leaves with silver markings much like a cyclamen leaf. The flowers are lilac with white and yellow markings and are about an inch long. It is very new to cultivation.

2. *Lapeirousia oreogena*

IRIDACEAE

Kathy Echols, Martinez

The iris family in South Africa includes more than 27 genera and 708 species. One of the most delicate and beautiful genera, *Lapeirousia*, includes this 4-inch tall species that is bright violet with cream markings. The nearly 1-inch wide flowers have very long, 2 to 3-inch, floral tubes. They are pollinated by long-proboscid flies. This species comes from dry arid regions and needs a summer dormant period and well-drained soil.

3. *Codonanthe carnosa*

GESNERIACEAE

Don Mahoney, grown at Strybing

This group of gesneriads come from central and South America and hybridize readily with related genera. This particular species has small, rounded grey-green leaves on trailing stems and makes an outstanding small hanging basket. It has half-inch long white flowers somewhat like a snap dragon. It will bloom almost year-round in a cool greenhouse and will do well outside in protected frost-free areas in part shade where it will bloom mostly in the wintertime. It needs soil that is loose and has extra bark for epiphytes.

4. *Euphorbia 'Tasmanian Tiger'*

EUPHORBIACEAE

Kathy Echols, Martinez

This delicate looking variegated euphorbia would add a light texture to any partly-shaded well-drained corner of the garden. It has pale green leaves edged in ivory with heads of ivory florets on green pedicils. It is a new patented variety.

5. *Helleborus 'Ivory Prince'*

RANUNCULACEAE

Kathy Echols, Martinez

This is a hybrid with the Christmas rose, *Helleborus niger*, as one of the parents. The plant shown was large and vigorous with numerous flowering stems. The written description on the patented plant label says "Ivory buds flushed pink on green bracts backed with a warm rosy shade." The plant was quite striking and is certain to be widely available.



Lapeirousia oreogena

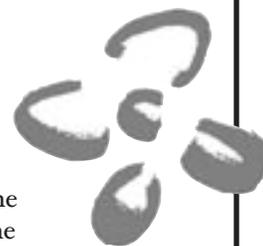
The Plant Forum is a traditional feature of our monthly meetings. Members are strongly encouraged to bring new plants or old favorites from their gardens to tell about and share. Something old-hat to you might be a brand new wonder to another member. What's putting on a display in your garden? Bring it in a share it with us!

New Plants Booth At The SF Flower & Garden Show

There still is a chance to get free admission to the San Francisco Flower and Garden show...all you have to do is volunteer for a 2 hour time slot to tell people about Cal Hort at the New Plant Introduction Booth. The Show is on March 17th through the 21st, so it is right around the corner. This is a great opportunity for us to promote new membership for the Society and to do a service to the all those great gardeners. This booth always creates great excitement.

We are the hot ticket!!! We already have had a lot of wonderful people volunteer to man the booth (Thank you), but there still is a few openings and we could use a couple more for set up on Monday afternoon, March 15th, Tuesday, the 16th and breakdown on Sunday. We will also need some plant babysitters to hang on to plants until the next meeting or the silent auction. And some folks may be needed to volunteer to pick up plants and bring them to the Cow Palace from various nurseries throughout the Bay Area. If you would like to help out in any way, please contact either Ellen Frank (newplants@calhortsociety.org, (925) 372-5559) or Martha Kincaid (Marth_kin@msn.com, (415) 467-2254).

See you at the show!



Horticultural Calendar

March 17

The Kippings' Monthly Slideshow and Potluck—Ron Parsons speaks about hunting orchids in East Australia. Please bring a dish to serve eight people. 7 PM at the County Fair Building, 9th Ave. at Lincoln Way, S.F. Free. (415) 753-7090

March 18

Lecture and Slide Show—Kelly Dodson speaks about plant collecting expeditions in western China. Hosted by the American Rhododendron Society at 7:30 PM at the Lakeside Park Garden Center, 666 Bellevue, Oakland (510) 841-5402.

March 18

IPM Conservatory Valley & inside Glass House—SF Professional Gardener's Association. 4 PM Conservatory. 50 people max, RSVP required. (415) 753-1366. WCIA; DPR; etc.

March 19

Oaks of California—Pam Muick speaks about our native Oaks and the role they play in California's environment. 7:30 PM at the Saratoga Library, 13650 Saratoga Ave., Saratoga. Free. For more info, contact Judy Fenerty at judy@fenerty.com or (408) 378-6272.

March 25

Wildly Successful Plants: Northern California—new book by Pam Peirce launch party. City College SF. 5:30-7:30 PM. 50 Phelan Ave, Rosenberg Library, 2nd floor atrium. Free. (415) 239-3580 or slyons@ccsf.edu

March 27

Intro to Horticultural Therapy—Learn about 'healing gardens' and adapting gardening to meet individual and special needs. A fee based class with Karen Talbot 9:30 AM - 12:30 PM at Merritt College. Fee \$30. (510) 436-2419 or www.peralta.cc.us

April 3

Annual Dahlia Tuber & Cuttings Sale—SF County Fair Bldg. 9 am. (415) 566-5222. Dahlia Society of CA.

April 3 & 4

Annual California Wildflower Show—Come see the 35th annual exhibition of freshly gathered wild and native flowers. 10 AM - 5 PM and NOON - 5 PM at the Oakland Museum, 1000 Oak Street, Oakland. www.museumca.org or (510) 238-2200.

April 10

Geraniaceae Smorgasbord—Robin Parer will discuss and show an amazing assortment of new blue Geraniums and angel Pelargoniums. There will also be a selection for sale. 9 - 11 AM, at the Gamble Garden, 1431 Waverly St., Palo Alto. Members \$20, non-members \$25. (650) 329-1356 or www.gamblegarden.org

April 17 & 18

Rhododendron Society Show and Sale—See and buy plants from Azaleas to Vireyas. NOON - 5 PM and 10

AM - 4 PM at Lakeside Park Garden Center, 666 Bellevue, Oakland. Free. (510) 841-5402

April 24 & 25

Spring Wildflower Show—also seeds, books, poster and displays. 10AM-4PM. Santa Clara NPS. Mission College, from 101, Great Americal Pkwy, left on Mission College, right on Perimeter Rd to Lot C. Free.

April 25

Secret Gardens of the East Bay Garden Tour—9AM-5PM, rain or shine. (510) 653-0317 x 103. Cathy@parkdayschool.org

The Ruth Bancroft Garden

(925) 210-9663 • www.ruthbancroftgarden.org

April 9

Dry Garden Design Seminar: Aloes Agaves & Aeoniums—One of three courses in a series, this one focuses on designing with sculptural succulents in summer-dry gardens. 9 AM - 2:30 PM at the Civic Arts Ed. Bldg. in Walnut Creek. Members \$65 and non-members \$70.

April 10

Spring Plant Sale and Opening Day—featuring perennials and xerophytes from the garden and a special collection of bonsai pots. 9:30 AM - 2 PM.

U.C. Botanical Garden

(510) 643-2755 • www.botanicalgarden.berkeley.edu

March 15- April 15

Spring Bulb Bonanza—A special month-long sale of potted bulbs from *Allium* to *Zigadenus* will be available at bargain prices. Check the website for a complete list. Garden shop hours are 10:30 AM - 4:30 PM.

First Saturday of the Month

Sick Plant Clinic—Let plant pathologist Dr. Raabe and entomologist Dr. Mills diagnose what ails your plants. 9 AM - NOON. Free. No reservations required.

Jepson Herbarium

(510) 643-7008 • www.ucjeps.berkeley.edu

March 13 & 14

Basics Of Botanical Illustration—Spend the weekend learning this fine horticultural art with Linda Ann Vorobik. Includes field and classroom sketching. Members \$175, non-members \$200

March 20 & 21

Digital Photography Techniques at Close Range—An intensive workshop that focuses on learning to use your digital camera for botany, ecology and nature images. With Steven Poe. Members \$175, non-members \$200

April 23- 25

Flora of Mount Diablo—Broaden your knowledge of

Continued →

Prunus mume

With its cheerful late winter flowers giving the air a spicy perfume and a burst of color to brighten the landscape, *Prunus mume* is an ideal flowering tree. Although this plant is commonly known as the Japanese apricot or Japanese plum, it is actually neither. It is in the genus *Prunus*, so it is related to these other trees, but is not a true apricot or plum. It is a beautiful, small, deciduous tree, known both for its attractive flowers and its longevity.

Depending on the cultivar, white, pink, rose, red or crimson flowers, either single or double, are followed by attractive, small yellowish fruits. Despite its common names, the fruit is inedible. This tree grows moderately fast to a height of 12 to 20 feet, with a crown diameter of about the same dimensions.

Not only an attractive tree, *P. mume* is also the source of the small unripe plums used for *umeboshi* (pickled plum) popular in China and Japan. This sour fruit is traditionally used as a cure for vomiting, intestinal worms, fevers, coughs and colds and has now found favor as a color fixative for cosmetics and fabric dye. In addition, this wizened little fruit also acts



as a sterilizer and antibacterial agent. It contains organic acids that can kill bacteria, so an *umeboshi* is usually included in a bento lunchbox, as a “garnish,” to prevent food-poisoning, especially during the summer months when bacterial growth is greatest and hydrochloric acid levels in the stomach are lowest.

Prunus mume is happiest in full sun, planted in well draining, slightly acidic soil. *The Sunset Western Garden Book* recommends a fairly hard pruning annually, starting one year after the tree is planted. This helps keep the crown dense, and full of young branches for heavier flowering. Over time, the trunk can become attractively gnarled.

In Japan, where this tree is very popular, there are estimated to be 300 cultivars, far more than you are likely to find in your corner nursery here. Some of the available cultivars include ‘albo plena’ (white), ‘Alphandii’ (pink), ‘Benishidare’ (crimson), ‘Dawn’ (ruffled double pink), ‘Bonita’ (rose), ‘Matsubara’ (red), ‘Peggy Clarke’ (double rose), ‘Rosemary Clarke’ (double white), and ‘WB Clarke’ (double pink on a weeping plant).

Mount Diablo’s floristic treasures with Dr. Barbara Ertter. Includes camping, short hikes and meals. Members \$325, non-members \$350.

Strybing Arboretum Society
(415) 661-1316 • www.strybing.org

March 13

Plant Sale—Featuring rare and unusual plants. 10 AM – 1 PM at the Nursery.

March 18 & 20

Natural Perfume—Learn the history and ingredients of all-natural perfumes and then return to create your own special fragrance. With Mandy Aftel. 6:30 – 9 PM and 9AM – 1 PM at the CFB. For each day the fee is \$25 for members, \$40 for non-members.

April 3

Plant Sale—Featuring early Springtime Blossoms. 10 AM – 1 PM at the Nursery.

April 8

Common Insects and their Relatives—Bob Stewart presents a slide-lecture featuring common insects and their role in nature. 6:30 – 9 PM at the CFB. Members \$50, non-members \$65.

April 13 - May 19

California Natives in Style—A basic design course using local native plants and their communities to create a stunning garden. Six classes, 6:30 – 9 PM, and 3 field

trips, 10 AM – 3 pm, with Alrie Middlebrook and Glenn Keator. Members \$255, non-members \$295

U.C. Santa Cruz Arboretum
(831) 427-2998 • www2.ucsc.edu/arboretum

March 13

Hummingbird Day—A whole day dedicated to the smallest of birds. Slides, lectures, favorite plants, kid’s activities and tours of the garden. 10 AM – 4 PM at the Horticulture Bldg. Free

March 21

Botanizing the Eel and Carson Rivers—Ted Kipping will give a well-illustrated vicarious tour down these waterways. 1:30 PM at the Horticulture Bldg. Members and their guests \$10, general public \$15.

SAVE THESE DATES:
April 17-18, 2004

California Horticultural Society’s
10th Annual Plant Sale

Our Sale has become one of the Bay Area’s premier sales owing to the talents of it’s many members. Let’s keep that tradition strong! **PROPAGATE: Time’s running out to get things to a saleable size.** Your plant donations help increase the revenue of our sale which funds our Grants and Scholarships Program.

Plant Exploring in Southern Mexico

Presented by Gary Hammer, founder, Desert to Jungle Nursery

Projecting slides of lush tropicalia and picturesque xerophytica in the San Francisco County Fair Building, Gary Hammer gave the Society's audience in February a vision of subtropical plants for California gardens both south and north. Hammer is a nursery owner in Los Angeles and the state of Veracruz, Mexico. He explores for new California horticultural subjects among the pine-oak forests, cloud forests and high deserts of Mexico, especially in the states of Veracruz, Puebla, Oaxaca and Chiapas. He also cultivates his new finds, plus some exotics, in his nursery at the 5000-foot elevation near Pico de Orizaba, the third-highest peak and the tallest volcano in North America.

Hammer provided marvelous vistas of mountainous cloud forest, his lush mid-elevation nursery landscape beneath snowcapped Orizaba, as well as the rain-shadowed desert terrain in the Valley of Tehuacán nearby in the state of Puebla, where Echinocactus, red Jatropha, blue-striated Agave marmorata, red-and-chartreuse succulent Hechtia bromeliads, ocotillo cousins in the genus Fouquieria, and Bursera trees thrive. So, unfortunately, does "mala mujer," a ferocious stinging member of the euphorbiaceae with lovely maple- or mallow-like leaves that inconveniently also occupies moist forest zones in a leafier form, the better to lose sight of amidst the verdant ambiance.

Even at the moderate elevation of 5000 feet, Hammer's nursery experiences light frosts about every five years, but otherwise offers perfect conditions for growing on elephant-ear plants in the genera Xanthosoma (New World), Alocasia metallica and Colocasia illustris (Old World) for export to his Southern California nursery. The moist, warm, windward location also allows for cultivation of colorful Cordyline terminalis and Hibiscus selections, new pendent red Trigridia, heat-loving Hymenocallis eucharydifolia, Crinum hybrids, and tree ferns like Cyathea princeps and Cibotium schiedeii. Among the ferns he recommended for Bay Area gardens is a low-growing cloud-forest Blechnum with red new fronds



Especially exciting for California gardeners are the Heliconias Hammer has introduced. The epitome of tropical flowering perennials with their strong colors and lobster-claw forms, many of the higher-altitude species – *H. spissa*, *H. aurantiaca* – grow well and flower in Southern California, and have proven themselves in Cal Hort member David Feix's Berkeley garden, thus boding well for their use in other favored mild-climate Bay Area locales.

Other Mexican subtropicals adaptable for mild Bay Area gardens that Hammer presented were the epiphytic orchid, *Brassia verrucosa*, the terrestrial *Sobralia macrantha*, bromeliads in the genus *Tillandsia* and *Pitcairnea*, broad-leaved *Begonia nelumbifolia*, a carmine-red *Salvia*, the shade-loving *Justicia coccinea*, and a spectacular *Lobelia* with silvery-red leaves, specimens of which a few lucky audience members received in the drawing. Hammer also donated to the drawing plants of *Begonia nelumbifolia*, two Heliconias, the ideal small tree palm *Chamaedorea plumosa*, Agaves and other choice selections from his nursery stock.

Valiantly fighting a cold, Gary Hammer gave plenty of inspiration for testing the diverse flora of southern Mexico in our Northern California gardens. By choosing selections from higher altitudes, and species proven in Los Angeles to prefer cooler, more humid conditions, we Bay Area gardeners can bring a Mesoamerican ambiance into our environs with minimal winter disappointment.

Need some Horticultural Help?

The back page of your Cal Hort Roster contains a special listing of our Business members. What better way to insure your future landscaper knows a tulip from a petunia? It's also a great place to give recommendations to friends from!



Seed Germination

by H. M. Butterfield

The principles and practice of seed germination are of great practical importance to plant propagators.

A review of some of the essentials will be given here, and a few definitions that may help others to understand the discussion and the directions.

Definitions

A *seed* is a fertilized and ripened ovule, usually in a resting stage. The *ovule* contains an egg nucleus, in a so-called embryo sac, and other essential parts that ultimately produce a healthy seedling. When viable pollen which has an affinity for the species and variety being pollinated reaches the receptive stigma of the flower, a pollen tube will be formed that pushes its way down to the ovary. The pollen tube contains two sperm nuclei. One of these units with the egg nucleus; and this fertilized egg then divides repeatedly to form an embryo, and seed development follows. The other sperm nucleus fuses with another nucleus in the embryo sac; and the product of this fusion divides to form the endosperm.

There are many causes of faulty natural pollination in plants, and artificial pollinators may have to be available at the proper time. Insects and wind may help carry viable pollen to the stigmas. In the case of certain selected and cultivated varieties, such as the avocado, the stigma may be receptive at a time when the parent tree is not shedding pollen or the parent plant may be shedding pollen when the flowers are not receptive to pollen. The stigma normally forms a sticky, sugary material in which the pollen grains can germinate and push on down through the style to reach the ovary and bring about fertilization of the egg. There must be a proper affinity between the pollen plant and the seed parent. When listing the parents of artificial crosses, it is customary to list the seed parent first and the pollen parent next. Date of pollination should always be recorded when known.

In the case of citrus seeds and a few other plants, normal pollination which sets up embryo development through the sexual process may be accompanied by the formation of embryos which develop by budding of maternal tissue into the embryo sac. Seedlings developed from such embryos are genetically the same as the mother or seed parent. These embryos which are not the direct result of pollination may require the stimulation of normal pollination to start forming but are asexual in nature. This poses a problem when it is desired to combine the characters of two varieties or species.

The plant breeder may also find that pollination has taken place within the flower before the petals open. The breeder gets around this trouble by emasculating the flowers, that is, removing the anthers, well before any pollen has been shed. Prior to and following hand pollination, the flower is "bagged" to prevent any other pollen from reaching the hand-pollinated flower.

Seed Condition

Seeds need to be handled carefully to avoid damage to

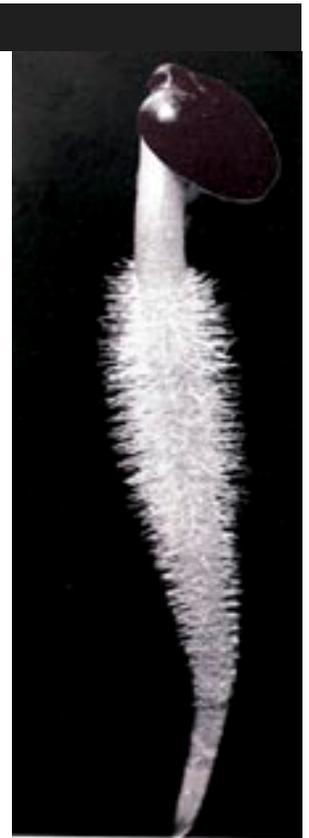
the embryo. Rough handling at threshing time can result in a lower percentage of germination. Rains or excessive moisture at the time of harvest cause trouble, whereas a long dry season at time of harvest favors a much higher grade of seed. Keeping seed in a plastic bag while there is still too much moisture can result in mildewing and rapid deterioration. Consequently seeds should be dried before storage in dry-air containers. It may help some to keep the seed cool at 35 to 40° F. during storage, or else plant promptly, as in the case of rose seed, oak acorns, or maple seeds, and various other seeds that have a short life. In all cases there must be a mature embryo inside the seed coat if germination is to take place. Cracking a few seeds will usually show if the seed has filled out properly. There are state

and federal laws which set germination standards for many field seeds being shipped, so the buyer will know that their germination percentage will be reasonably good. Most reliable dealers destroy seeds that have deteriorated. Actual tests are made at intervals to insure a good percentage of germination.

Germination refers to the planting of seed and the resumption of growth causing seedlings to appear. In some cases it is difficult to break the rest period. The seed may remain alive for months or years until the proper conditions appear and overcome the block. Many seeds will germinate in a week or two or three weeks, but some seeds may take weeks or even years until barriers to germination are removed. Methods for avoiding or breaking the blocks will be discussed later.

Kinds of Seeds

Seeds have been classified in various ways with the hope that the proper method for germination can be selected. Seeds may come from a temperate zone or from the tropics, or possibly from the dry desert. Seeds may be starchy, proteinaceous, or fatty. The longevity may be known or estimated. Certainly the propagator would like to know approximately when germination can be expected after planting. If special treatment has been given the seed, then the period for germination is counted from the time of planting to germination. The great majority of popular flower seeds will require only a week or two or a month at most to germinate. Some seeds of woody plants take more time. Some of the seeds that may take 60 days for germination...



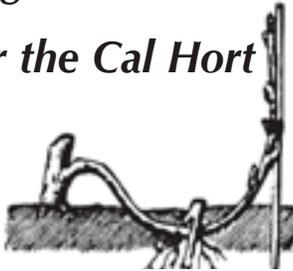
The remainder of this article can be found on our website in the Online Bulletin section

Cal Hort T-Shirts



\$16.24 (tax incl.) Size: large
Color: soft green w darker green logo
Available at Cal Hort Monthly meetings,
or call Ann DeRosa (510) 528-8404

*You're running out of time to
propagate for the Cal Hort
Annual Plant
Sale!*



Officers

President
Bruce Peters
president@calhortsociety.org

Vice President
Renee Fittinghoff
vicepresident@calhortsociety.org

Past President
Katherine Henwood

Recording Secretary
Richard Starkeson
rstarkeson@calhortsociety.org

Corresponding Secretary
Barbara Hopper
jbhopper@calhortsociety.org

Treasurer
Jan Hamby

Parliamentarian
Jan Hamby

Secretary

Elsie Mueller
1847 34th Avenue
San Francisco, CA
94122-4109
(415) 566-5222
(800) 884-0009

Executive Council

2002-2004

First Term
Michael Craib
Renee Fittinghoff

Second Term
Richard Starkeson
Keitha DeMara

2003-2005

First Term
Ann DeRosa
Bruce Peters
Jason DeWees

Second Term
Katherine Henwood

2004-2006

First Term
Dan Carlson
Scot Medbury
Josh Schechtel

Second Term
Diana Ross

Bulletin

Editor
Bruce Peters
25 Chattanooga Street
San Francisco, CA
94114-3024
(415) 824-1833
editor@calhortsociety.org

Hort Calendar Editor
Corina Rieder
calendar@calhortsociety.org

Deadline for publication is the
third Monday of each month for
the following month's *Bulletin*.
Events during the first ten days
of the month should be remitted
two months ahead.

Membership year begins January 1 and includes a full
subscription to *Pacific Horticulture*. Dues are \$40 individual, \$50
joint household, \$25 Student (with proof of enrollment). To join,
or for full range of membership levels, please visit our website at
www.calhortsociety.org or call (800) 884-0009.



**San Francisco County Fair Building
9th Avenue & Lincoln Way
San Francisco, CA 94122**

Non-Profit
Organization
U.S. POSTAGE
PAID
Permit #4143
San Francisco

www.calhortsociety.org

Dated Material - Please deliver by March 10