VIRTUAL SCHS 2020 ANNUAL AWARD EVENT

Horticulturist of the Year Awards will be Presented Posthumously to 3 Recipients

Thursday, September 24 - Register at: www.socalhort.org

Please join us for this special presentation as we honor and celebrate the lives and contributions to horticulture made by this year’s HOTY recipients.

This presentations will also be archived on our YouTube channel.

DARA EMERY

He was also their first full-time breeder and is regionally renowned for his work with California native plants. A native Angeleno, Emery’s contributions to the advancement of native plant horticulture throughout California are widely recognized.

We are pleased to share with you a look back at some of his many contributions to horticulture during this year’s HOTY event.

DENIS KURUTZ

Kurutz gained fame during the 1970s for his re-creation of the AD 79 Villa of Papyri at the Getty Museum in Malibu. His talent is evident in photos of the villa’s plantings, and his myriad artistic skills will be showcased during this evening’s program. We will be sharing images of renderings and drawings he produced for the villa as well as other notable projects.

BERT & MANNY SINGER

The Singers were also longtime members of SCHS, and we look forward to revisiting their incredible nursery, as well as recognizing them for their impact on local horticulture and beyond.

Southern California Horticultural Society

Where passionate gardeners meet to share knowledge and learn from each other.

socalhort.org

NEWSLETTER

September 2020

SCHS 2020 HORTICULTURIST OF THE YEAR EVENT

Thursday, September 24
Event begins at 7:00 p.m.
Presentation at 7:30 p.m.

Visit: www.socalhort.org for registration info.

SCHS WELCOMES NEW MEMBERS

In August

Brianna Gorton joined us!

We hope to “see” her and all of you at the HOTY Presentation!

CONNECT WITH SCHS

We invite members to engage with us online until we can meet again.

FIND US AT:
www.socalhort.org
www.facebook.com/pg/socalhort
www.instagram.com/socalhort

All membership options are also listed on our website.

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In August, the Southern California Horticultural Society invited Ernesto Sandoval, Director of the UC Davis Botanical Conservatory, to speak about plant hormones and how to manage them for better growing results. The program was educational and easy to understand, as Sandoval is accustomed to interpreting the world of plants for audiences ranging from K-12 students to life-long gardeners and horticulture professionals.

Sandoval began his presentation by reviewing some simple botany that is helpful for all gardeners to understand in terms of basic plant growth. He identified the meristems of plants (found at the top of the plant, the tips of the roots, and in the nodes) as groupings of undifferentiated plant cells that will eventually grow into new parts during the life of the plant. Meristematic tissue found within the dormant axillary buds in nodes can be influenced to become new shoots or roots through the application of growth hormones, either naturally occurring or artificially-introduced. The two major types of hormones affecting plant growth are auxins and cytokinins.

Auxins are produced at actively growing shoot meristems and young leaves, and travel through the phloem of the plant's vascular system towards the roots, inhibiting axillary bud growth along the way. Since the roots are unable to photosynthesize, they receive sugars and hormones this way, stimulating their growth. Synthetic examples of auxins include several acids (IBA, NAA, IAA) which trigger the same response in the root system that natural auxins do, and these are commercially available for purchase, like the powder forms found in products such as A.S. Roberts or Snip 'n Dip.

Cytokinins are produced at actively growing shoot meristems and young leaves, and travel through the xylem of the plant's vascular system towards the roots, inhibiting axillary bud growth along the way. Since the roots are unable to photosynthesize, they receive sugars and hormones this way, stimulating their growth. Synthetic examples of auxins include several acids (IBA, NAA, IAA) which trigger the same response in the root system that natural auxins do, and these are commercially available for purchase, like the powder forms found in products such as A.S. Roberts or Snip 'n Dip.

Sandoval next spoke about the responses plants have to various types of pruning cuts in regard to hormonal activity. When tips of shoots are removed, the production of auxins is interrupted, resulting in higher levels of cytokinins, which then allow the plant to generate new growth at the site of axillary buds. Cuts should be made just above the axillary buds located in the nodes. Conversely, if root-pruning occurs, the plants will build up a surplus of auxins where the cut was made, which will result in the formation of new roots at that site.

It is the combined knowledge of where to cut and which hormones to apply that allows for successful vegetative propagation to occur. He gave as an example the practice of planting tomatoes “deep” by removing the lowest leaves and burying the stripped stem several inches below the soil level, allowing the plant to form adventitious roots along the stem wherever meristematic tissue exists. This method creates an imbalance of hormones resulting in the production of more cytokinins that will speed up the vegetative growth of soft-stemmed plants like tomatoes, mints, geraniums, etc. If the goal is to “stunt”; or slow the growth rate of plants, both shoots and roots need to be pruned in order to remove multiple hormone control points simultaneously. By comparison, when transplanting, it is best to have active hormone production occurring. Cuttings for propagation should also be taken when the plant is actively growing. The softer the stem cutting, the fewer hormones are needed, which is why succulent cuttings can easily be “over-dosed” with synthetic hormones, and only products with low-level concentrations should be applied, if at all. Further, Sandoval explained that treated cuttings should always be kept vertical to allow gravity to bring auxins down to the bottom of the cutting, otherwise adventitious roots will form along the stem.

Slides showing varying degrees of success in stimulating vegetative growth of fresh stem and root growth provided visual evidence to illustrate the cutting techniques Sandoval described. He also presented a short video clip of how to strip the young leaves off a 4”-5” stem, make a fresh horizontal cut with sterile pruners (just below a node) before dipping it into rooting powder and then “planting” it in a mixture of damp vermiculite/perlite. He suggested creating a bit of humidity, or a greenhouse effect, by placing the container with the cutting(s) into a plastic bag. Conversely, succulent cuttings should be rooted in pumice or gravel and be allowed to grow in the open air. Additionally, he shared slides on the techniques of “air layering” to clonally propagate difficult-to-root woody plants along their stems; “layering” wherein stems are laid horizontally to allow auxins to build up at a specific point; splitting the apical meristem of an aloe (as well as other succulents) with a sterile blade to stimulate branching, and even touched on grafting slow-growing cacti onto other cacti with more vigorous roots to stimulate growth.

To wrap up his presentation, Sandoval briefly described gibberellins and ethylene, which are other hormones produced throughout plants, not just in meristematic tissue. Gibberellins promote the elongation, or stretching of cells, and are broken down by sunlight. This is why shade plants have greater amounts of gibberellins, resulting in larger (stretched out) leaves. Commercially they are often sprayed on table grapes to plump them up, whereas poinsettias and many house plants are treated with gibberellin-inhibitors to keep them compact. Ethylene is responsible for promoting ripening, cell maturation, leaf senescence and the eventual death of plants.

After the presentation, webinar hostess Erin Castillo awarded a copy of the book Plant Propagation, 8th Edition by Hartmann and Kester as a raffle prize to a winner from the audience, followed by a Q & A session with Sandoval to conclude the program.

To learn more about the functions of all plant hormones, please visit: www.phytohormones.info

To watch this entire presentation on SCHS’s YouTube channel, click on the following link: https://www.youtube.com/watch?v=SF_vsedAYR4

SCHS MONTHLY GARDEN SHARE

Protect your plants from the effects of the excessive heat (exacerbated by the wildfires).

• Provide supplemental water
• Shade them to protect against sun-scald on foliage
• Hold on removing “burned” leaves - they will shield others

And please protect yourselves during these heat waves too!

• Stay well-hydrated
• Remain indoors or in the shade as much as possible
• Limit physical activity - like gardening!

PLEASE STAY SAFE!

Sabine Steinmetz
Due to COVID-19 pandemic, local botanic and public gardens, as well as venues providing resources and education for gardeners, continue to offer only limited activities.

NOTE: Organizations below that have reopened as of press time are marked ❗️. Those with only an online presence, or holding virtual meetings, are marked 🌱.

Please support your local favorites, but check with individual venues for updated info if you are planning a visit. And don’t forget, your local nurseries need support too!

**CALIFORNIA BOTANIC GARDEN**
(formerly RANCHO SANTA ANA)
1500 N. College Ave., Claremont 91711
909.625.8767 www.calbg.org

**CALIFORNIA NATIVE PLANT SOCIETY**
SAN GABRIEL MOUNTAINS CHAPTER
1750 N. Altadena Dr., Pasadena 91107
818.398.5420 www.cnps-sgm.org

**CALIFORNIA NATIVE PLANT SOCIETY**
L.A./Sta Monica Mtns Chapter / Sepulveda Garden Ctr
16633 Magnolia Blvd., Encino 91436
818-782-9346 www.lacnps.org

**COASTKEEPER GARDEN**
1560 E. Santiago Cyn. Rd., Orange 92869
714.850.1965 www.coastkeeper.org

**DESCANSO GARDENS**
1418 Descanso Drive, La Canada 91011
818.949.7980 www.descansogardens.org

**EATON CANYON NATURE CENTER**
1750 N. Altadena Dr., Pasadena 91107
626.398.5420 www.ecnca.org

**FULLERTON ARBORETUM**
1900 Associated Road, Fullerton 92831
657.278.3407 www.fullertonarboretum.org

**HUNTINGTON BOTANICAL GARDENS**
1151 Oxford Road, San Marino 91108
626.405.2100 www.huntington.org

**LOS ANGELES COUNTY ARBORETUM**
301 N. Baldwin Ave., Arcadia 91007
626.821.4623 www.arboretum.org

**NATURAL HISTORY MUSEUM OF L.A.**
900 Exposition Blvd., Los Angeles 90007
213.763.3466 www.nhm.org

**RANCHO LOS ALAMITOS**
6400 E. Bixby Hill Rd., Long Beach 90815
562.431.3541 www.rancholosalamitos.org

**RANCHO LOS CERRITOS**
4600 Virginia Road, Long Beach 90807
562.206.2040 www.rancholoscerritos.org

**SAN DIEGO BOTANIC GARDEN**
230 Quail Gardens Dr., Encinitas 92024
760.436.3036 www.sdbgarden.org

**SOUTH COAST BOTANIC GARDEN**
26300 Crenshaw Blvd., Palos Verdes 90274
310.544.1948 www.southcoastbotanicgarden.org

**THEODORE PAYNE FOUNDATION**
10459 Tuxford St., Sun Valley 91352
818.768.1802 www.theodorepayne.org

**UC RIVERSIDE BOTANIC GARDENS**
900 University Ave., Riverside 92521
951-784-6962 www.gardens.ucr.edu

Please visit www.socalhort.org for updates on information about venues and events.

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**SCHS Activities and Announcements**

We are pleased to be able to host a virtual version of our annual Horticulturist of the Year Award (HOTY) program, posthumously honoring a select group of recipients. (Please see details on Page 1.)

We will miss seeing everyone in person and being able to participate in our always-exciting Silent Auction. Since the latter is normally the largest fund-raising event we put on during the year, and the HOTY presentation will be free this year, we hope you will consider donating any amount you can to assist with this deficit. This money is used to pay speaker fees, as well as other events during the year.

Our efforts to recruit new members and provide internships for the next generation of horticulturists are ongoing, and part of our annual budget. This includes the expansion of our social media presence, which has become more significant during the pandemic in furthering our outreach into the So Cal community-at-large. We are currently updating our Membership Levels in an effort to attract more student and "virtual" attendees to meetings. Check the website for all the most current information.

Thank you for supporting SCHS through your membership and donations.

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**RESERVE YOUR SPOT FOR 2020 HOTY PROGRAM TODAY!**

Click here to link to registration form: www.socalhort.org/meetings
Until we are able to meet again in person, monthly programs will continue to be scheduled as online webinars.

**UPCOMING SCHS PROGRAMS**

- **September 24**: 2020 Horticulturist of the Year Awards honoring: Dara Emery, Denis Kurutz, Bert & Manny Singer
- **October 8**: Florence Nishida on Growing Asian Vegetables in L.A.
- **November 12**: Dennis Mudd, creator of Calscape, speaking about Native Restoration Landscaping
- **December 10**: Program details TBA

**GARDEN QUOTE OF THE MONTH**

“How beautiful the leaves grow old. How full of light and color are their last days.”

— John Burroughs

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**Southern California Horticultural Society**

P.O. Box 94476
Pasadena CA 91109-4476

**NEWSLETTER September 2020**