The Central Valley Garden in Winter
Ellen Zagory, Director of Horticulture and Diane Cary, Communications Director

In California’s Central Valley, the onset of winter’s cool, wet weather marks the beginning of the growing season for California native and Mediterranean climate-adapted plants.

Comparable to early spring in colder, continental climates, this is the season when root growth begins and summer drought-adapted plants emerge from dormancy, leafing out and even, in some cases, bursting into bloom. Winter highlights include ornamental tree bark, clusters of glossy berries, and interesting plant forms and foliage. As an added bonus, winter gardens are alive with the calls and movement of migrating birds.

**EVERGREEN PLANTS PROVIDE STRUCTURE**

Winter is the perfect time to consider the shrubs and trees that are the “bones” of the garden, forming the foundations and backdrops for smaller plants that come and go. In the California native section of the UC Davis Arboretum, we rely on evergreen shrubs like California wild lilac (Ceanothus spp. and cultivars), toyon (Heteromeles arbutifolia), sugar bush (Rhus ovata) and lemonade berry (Rhus integrifolia) for dependable garden structure. One of our most spectacular winter features is the silk tassel bush (*Garrya elliptica* ‘James Roof’), with long silvery dangling flower clusters.

**GARDEN MAINTENANCE IN WINTER**

Protect your soil from compaction by placing a thick layer of mulch on the soil before the winter rains begin. Be sure to leave space between the mulch and the trunk of the plant to avoid fungal diseases that arise from moisture trapped at the stem. Mulch will suppress spring weed seed germination and allow you to work in the garden in winter without compacting the wet soil. Plus, it will keep your gardening shoes mud free!

To ensure vigorous growth and tidy forms, cut back fall perennials in winter, after the birds have had a chance to take the seeds. Following a freeze, we recommend that you wait before pruning damaged foliage or removing plants that have died to the ground. Dead growth will protect the plant from further freezing. Pruning too soon leaves tender new growth unprotected and even more vulnerable to low temperatures. When the danger of frost is past, check stems to see if they are firm and not spongy. If they are firm, scrape a small section of bark with a fingernail and look for green below the bark. All spongy and brown growth can be removed, leaving firm green stems to resprout. Later you can prune to re-shape the plant as needed.
**ARBORETUM ALL-STARS FOR THE WINTER GARDEN**

Washington hawthorn, *Crataegus phaenopyrum*, is a sturdy small tree perfect for today’s smaller suburban gardens. It provides year-round interest for Valley gardeners with profuse white spring flowers, brilliant scarlet foliage in fall, and ornamental fruit clusters in winter that are appreciated by birds. It appears to be disease free in our area.

Winter daphne, *Daphne odora ‘Aureomarginata’*, is an evergreen shrub useful in the shade garden and sought after for its fabulous winter fragrance. It is able to tolerate our clay loam soil with watering only every two weeks in summer. The rounded clusters of pinkish flowers will entrance you and visitors to your garden with their scent. It may take a few tries to find the perfect spot for this winter bloomer but it’s worth the effort.

In January and February, manzanitas come into their glory, with attractive clusters of urn-shaped flowers. *Arctostaphylos densiflora ‘Howard McMinn’*, the Vine Hill manzanita, has clean, dark-green foliage and pale pink blooms and performs well at the Arboretum. Resident hummingbirds will flock to this plant during this time when nectar is hard to find.

Hybrid garden hellebore, *Helleborus x hybridus* (left), is an easy perennial that brightens the shady winter garden by producing clusters of saucer-shaped, white, pink, mauve or smoky purple flowers. Many new forms are becoming available in darker colors, with doubled petals and with more upright, rather than drooping, flowers. The large, leathery, evergreen foliage persists, but if it gets tired-looking should be cut back in the winter when the flowers and new foliage emerge.

Deer grass, *Muhlenbergia rigens*, is a native grass that can be used as an accent plant or low, informal screen. It can reach 3-5 feet in height and 4-6 feet wide. It is very adaptable, growing in either full sun or part shade, with little or average irrigation. Deer grass produces upright and arching foliage and dramatic flower spikes and adds texture and movement to perennial plantings. It can be cut to the ground to freshen the foliage every few years and sprouts back rapidly.

**NEW NURSERY CONSTRUCTION STARTS**

Carmia Feldman, Assistant Director

Construction has begun on our new nursery! It will be built this winter in the field north of the Mediterranean collection, along Garrod Drive across from the Veterinary Medicine buildings. This will replace our current nursery at Orchard Park. The new site is conveniently located near the Ruth Risdon Storer Garden, our Valley-Wise demonstration garden, and Shields Oak Grove.

Having the nursery at this location aligns well with our long-range plans to turn the west end of the Arboretum into a showcase of sustainable horticulture practices. The new nursery will be a teaching and demonstration area for UC Davis students and the public to learn about Arboretum All-Star plants and Valley-Wise gardening—plants and practices that are suitable for Central Valley conditions.

We plan to partner with the California Center for Urban Horticulture and other horticultural programs, such as the Master Gardeners, to make this a true “teaching nursery.”

The move is necessary because UC Davis is building a new Student Health and Wellness Center on the site of our current nursery. When we heard that we would have to move, we assembled a team of volunteers and staff to investigate our current set-up and future needs. Bob Gregoire, a professional facilities manager and Arboretum volunteer, has led weekly meetings with Mary Patterson, president of the Friends of the UC Davis Arboretum, and our nursery and planning staff since January 2007. We have interviewed stakeholders about what they need and want in a nursery and met frequently with the project manager from UC Davis Architects & Engineers to make sure the new nursery will meet our needs. We have worked hard to assess all of our nursery systems and streamline our processes.

Part of the funding for the new nursery is provided by the Health and Wellness Center project as a relocation cost. Although we do not have the funding at this time to create our dream nursery, we know the new nursery will be a great improvement over the current site, which was built over many years with very limited resources. We have planned the nursery with room to add features in the future as funding and other resources allow.

Don’t miss our final sales in the current nursery site on Orchard Road this spring. We will hold our annual Members-only Plant Sale and Social on March 15 and one public sale on April 12. Be sure to come to both sales to take advantage of discounted prices and other incentives so we can clear our inventory and get ready for the move. We will have the new nursery site up and running in time for our annual Plant Faire in October 2008.
**WILLIAM F. MCCOY, IN MEMORIAM**

The Arboretum lost a staunch advocate and devoted volunteer with the passing of William F. McCoy on Oct. 18, 2007.

As associate university librarian for UC Davis for 20 years, Bill was responsible for personnel, budget and facilities operations, including two major expansions of Shields Library and construction of the Physical Sciences Library.

After retiring, he brought his expertise to the Arboretum, where he served 14 years as volunteer librarian, as well as several terms as membership chair for the Friends of the UC Davis Arboretum. He contributed thousands of hours to establishing and maintaining a rich, compact collection of horticultural and botanical resources that is used extensively by staff, volunteers, and members. In 2004, Bill's friends dedicated a bench in the Redwood Grove in his honor on the occasion of his 80th birthday. His presence in the Arboretum office was a delight, as were his homemade birthday cakes for staff—often with a secret ingredient like sauerkraut or tomato soup. His erudition, wit and humor were a tremendous asset to the Arboretum, and we miss him.

**CALIFORNIA CENTER FOR URBAN HORTICULTURE UPDATE**

Ellen Zagory, Director of Horticulture

On October 16, 2007, the California Center for Urban Horticulture (CCUH) held its first industry conference on “Quality Trees for California.” The Arboretum is a partner in the Center and helped launch it last year. Attended by over 140 nursery industry representatives, the conference focused on methods and standards for production of the highest-quality container-grown trees. Tree failure in landscapes is often attributed to nursery practices, such as improper pruning that leads to later branch failure. In addition, container culture of trees can result in circling roots that can “choke” the stem as the tree grows. Circling roots can result in poor establishment and growth as well as unstable trees that topple easily. Conference topics included a review of best management practices and standards for growing and selecting best-quality trees.

In other news, Melissa “Missy” Borel has been hired as the new Program Manager for CCUH. Missy recently completed a Master’s degree in Plant Science with a major in Environmental Horticulture; as a graduate student she worked as an education and planning assistant at the Arboretum. When asked about her vision for her new position, she said, “We have a valuable role, serving as an outreach arm connecting university research to businesses, communities and individuals outside of the campus. Engaging these audiences allows us to disseminate horticulture information widely, to help make the landscape of California’s urban forest both beautiful and sustainable.”

**ARBORETUM CO-HOSTS NATIONAL GIS SYMPOSIUM**

Mary Burke, Director of Planning and Collections

In November, the UC Davis Arboretum, together with the American Public Gardens Association (APGA), the Missouri Botanical Garden, and the San Diego Zoological Society, hosted the first national GIS (geographic information systems) symposium for zoos and botanical gardens. The sold-out event attracted staff who use digital maps and ArcGIS software to manage their grounds, facilities, plant collections, and research projects. Topics included practical issues, such as ‘How to Launch a GIS’ and ‘How to Fund a GIS’, as well as innovative ways to use GIS as an educational tool in a garden or zoo. Dr. Peter Raven, one of the world’s leading botanists and longtime director of the Missouri Botanical Garden, gave a stirring kick-off address. Dr. Jack Dangermond, president and founder of ESRI (Environmental Systems Research Institute), was the keynote speaker at the two-day symposium.

ESRI is considered to be the world leader in GIS software and technology. Dr. Dangermond has initiated a new donation program to provide free online training and ESRI software licenses for every zoo and botanical garden in North America. This bold and exciting new donation program was the result of Jack’s passion for plants and global plant conservation and his response to a proposal developed in 2006 by Cary Sharp and Mary Burke.

We are all very grateful for ESRI’s support and encouragement as we work together to understand and protect the world’s floristic biodiversity, both in wild places and in scientific collections within botanical gardens and zoos around the world.
Fall Events

Clockwise from top left: Professor Art Shapiro (second from left) leads a tour of butterfly habitat in the Arboretum. Cultural interpreter Diana Almendariz teaches Annapurna, age 9, to make cord from tule fibers. Pam Houston, professor of English, listens as one of her students introduces her. Faculty in the creative writing program read from their work to a standing-room only crowd at the Wyatt Deck. Outdoor Education Coordinator Tracy Rosenthal demonstrates acorn grinding to a 4th-grade class at our new education pavilion at the Wyatt Deck. Arboretum superintendent Warren Roberts leads a tour of the Shields Oak Grove as part of an event celebrating the oak collection.

KUDOS! The UC Davis Arboretum was recently named one of the ten best botanic gardens in the United States by Hotel Club Travel Blog. See the story at http://blog.hotelclub.com/the-10-best-botanic-gardens-in-the-us/. 
OAK ACCOLADES
Emily Griswold, Assistant Director of Horticulture

The UC Davis Arboretum’s impressive oak collection of 574 trees representing 95 different varieties has recently been recognized as a collection of national significance by the North American Plant Collections Consortium. Over 90 Arboretum supporters gathered on October 19 to celebrate this new honor and to acknowledge the contributions of Arboretum director emeritus Dr. John M. Tucker to the development and maintenance of the collection.

The North American Plant Collections Consortium (NAPCC) is a cooperative program of the American Public Gardens Association, the USDA, and the U.S. National Arboretum that is dedicated to conserving plant diversity in the living collections of botanical gardens. Institutions participating in the NAPCC must commit to professional standards of collections management and make their plant collections available for selection and breeding, taxonomic studies, evaluation, and other research, teaching, and conservation work. The application process requires a comprehensive inventory of collections records, a survey of collections policies and maintenance, a site review by a knowledgeable curator, and a statement of institutional commitment. The UC Davis Arboretum has fulfilled all of these requirements for our oak collection and has been accepted as a full member of the program.

We join 14 other public gardens with large oak collections in forming the first ever multi-institutional NAPCC collection. With over 400 species worldwide from diverse climates and habitats, the oaks would be impossible to represent in a single garden’s collection. By coordinating efforts with gardens in different climate zones, we aim to cooperatively increase the diversity of our holdings and maximize our representation of the world’s oaks. Other prominent gardens in our group include the Missouri Botanical Garden, the Morton Arboretum, Cornell Plantations, and the UC Botanical Garden at Berkeley. We hold the distinct honor among the 15 institutions in the oak group of having the most unique collection, with 18 species, varieties, and naturally-occurring hybrids not represented in any other garden. The uniqueness of our collection is largely due to the contribution of wild-collected acorns from the research of Dr. John M. Tucker over the course of his long academic career in oak taxonomy.

Emily Griswold, assistant director of horticulture, has been nominated to serve as the first coordinator of the NAPCC Oak Curatorial Group, an association of the curators of all 15 NAPCC oak collections. She is looking forward to working with the group to improve our representation of oaks from the southern U.S. and Mexico, improve our collections documentation with voucher herbarium specimens, and make our collections more accessible to researchers with an online database.

LISA CHAFFEE
Beth Gale, Nursery Manager

Please join us in welcoming Lisa Chaffee to the Arboretum staff as our propagation specialist. Lisa has been with the Arboretum since June 2005 as a student nursery assistant. She has been a vital part of the plant sales; she is a natural leader, has a real passion for plants and is a fantastic researcher. She recently graduated from UC Davis with honors in Plant Biology with an emphasis on genetics and breeding. She is very interested in plant introductions, looking for new and improved plant characteristics. Lisa began propagating on her own almost nine years ago and variegated and shade plants are her true loves. Her new role is funded lor a year by a Slosson grant intended to create propagation protocols for ten difficult-to-root Arboretum All-Stars species. We are very lucky to have Lisa on our team!

Lisa Chaffee, left, helping a customer at an Arboretum plant sale.
GUIDED TOURS

No charge, no reservation required

WALK WITH WARREN
Wednesday, January 9, noon, Gazebo

CONTAINER GARDENS FOR THE CENTRAL VALLEY
Saturday, February 2, 11:00 a.m.
Arboretum Terrace

FINDING BEAUTY IN THE DEAD OF WINTER
Saturday, February 9, 11:00 a.m.
Buehler Alumni & Visitors Center

WALK WITH WARREN
Wednesday, February 13, noon
Arboretum Headquarters

COLOR IN THE GARDEN
Saturday, February 16, 11:00 a.m
Gazebo

VARIATIONS ON A THEME: ACACIAS ALONG THE CREEK
Saturday, February 23, 11:00 a.m.
Arboretum Headquarters

NATIVE PLANTS FROM A GARDENER’S PERSPECTIVE
Saturday, March 1, 11:00 a.m.
Buehler Alumni & Visitors Center

SIGNS OF SPRING
Saturday, March 8, 11:00 a.m.
Buehler Alumni & Visitors Center

WALK WITH WARREN
Wednesday, March 12, noon
Arboretum Headquarters

EARLY SPRING IN THE STORER GARDEN
Sunday, March 16, 2:00 p.m., Gazebo

LIVING UNDER THE REDWOODS
Saturday, March 22, 11:00 a.m.
Buehler Alumni & Visitors Center

SPRING IN THE NATIVE PLANT GARDEN
Saturday, March 29, 11:00 a.m.
Buehler Alumni & Visitors Center

WORKSHOP: INTRODUCTION TO BOTANICAL WATERCOLOR
Sunday, February 3, 9:00 a.m.–4:00 p.m., Arboretum Library
Fees: $60/$50 members, students + $10 materials fee (required)

Join us for a beginning-level watercolor workshop. Students will learn the techniques and start their own botanical watercolors inspired by the Arboretum. Paints, paper, and tools provided by the instructor, Catherine Buscaglia (right). More advanced students are welcome to attend. For advance registration, please contact Judy Hayes at (530) 752-4880, jhayes@ucdavis.edu.

FOLK MUSIC JAM SESSIONS
Alternate Fridays, January 11, 25, February 8, 22, March 7, 21
12:00 p.m., Wyatt Deck (next to Redwood Grove)

Pull out your fiddles, guitars, mandolins, banjos (you name it) for an acoustic jam session. Campus and community folk musicians play together over the lunch hour. All skill levels welcome. Listeners welcome! Welcome!

NATIVE CALIFORNIAN ELDERBERRY FLUTE-MAKING WORKSHOP
Sunday, February 24, 1:00-3:00 p.m.
Room 146 Environmental Horticulture

In this free two-hour workshop you will learn how to make a Native Californian elderberry flute from East Bay Regional Parks docent Antonio Flores (left). Antonio will talk about the culture of flute-making and also about the endangered elderberry beetle. He will also teach us how to play our flutes. All materials will be supplied. Please bring a sharpened pocket knife. All ages are invited. Adults will need to supervise their young children.

SAN FRANCISCO FLOWER & GARDEN SHOW
Wednesday, March 12, 7:45 a.m.–5:00 p.m. Fee: $55 / $45 members

This year’s theme is “Make Life Beautiful.” Enjoy thousands upon thousands of flowers and plants with all their rich colors, fragrances and textures, four acres of inspiring gardens, and free seminars for all gardening levels. Shop at 300 exhibits, all strictly related to gardening, outdoor living and gardeners. Fee includes transportation and admission. Wear comfortable shoes. Bring a bag lunch or eat at the cafe. Advance registration required—call (530) 752-4880 for information.

MEMBERS-ONLY PLANT SALE & SOCIAL
Saturday, March 15, 9:00 a.m.–1:00 p.m., Orchard Park Nursery
Members only—join or renew at the door

Get first choice of our spring sale plants! Enjoy music, refreshments, and children’s activities. Expert garden advice, 10% discount and free plant for members. Bring a new member and receive an additional free plant coupon. Join at the door and receive a free plant coupon. Free parking in Visitor Lot 35.

Information: (530) 752-4880  www.arboretum.ucdavis.edu
We extend our sincere gratitude to these donors

**NEW & RENEWING MEMBERS**

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- Carolyn Akawa
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**IN MEMORY OF ALEXANDRA E. GREENE, M.D.**

- Daniel S. Micsevene
Dear Friends,

Reading through this issue of the Review, I was struck by how clearly the Arboretum is emerging as a national leader. Our oak collection has been recognized as nationally significant, and Emily Griswold is chairing a national committee of botanical garden curators (page 5). Our GIS project, led by Mary Burke and Brian Morgan, establishes us as a partner with the most prominent living museums (zoos and botanic gardens) in the country and has the potential to transform information sharing for conservation work worldwide (page 3). We were recently identified as one of the top ten botanic gardens in the nation by HotelClub Travel Blog (page 4).

We are breaking new ground as an education and outreach arm of UC Davis, with the development of a new teaching nursery (page 2) and an expanded palette of education programs, both in the Arboretum (page 4) and through the new California Center for Urban Horticulture (page 3). These efforts support the Arboretum GATEways initiative, bringing the rich resources of UC Davis to our regional audience. Student leadership development is another important aspect of the GATEways project. A number of students who have come through our experiential, hands-on internship and training programs have gone on to work for us in a professional capacity; the latest is our new propagation specialist, Lisa Chaffee (page 5).

This is the season to be thankful, and I am grateful for our wonderful volunteers, who not only contribute thousands of hours of valuable time and effort, but bring such richness to the Arboretum community. We remember Bill McCoy, our volunteer librarian who passed away last month, with great fondness and gratitude (page 3). I would like to welcome the new class of volunteers, just finishing their core training. I look forward to getting to know you all.

We are grateful to all of you who support the Arboretum financially, through your membership, memorial contributions, and annual gifts. If you contributed in response to our recent annual appeal mailing, thank you! If you have not yet contributed, please consider making a special gift. We will use your donation carefully to maintain and enhance our plant collections, gardens, and programs.

Be sure to bundle up and come out to enjoy the special charms of the Arboretum in winter! I hope to see you at some of our upcoming programs.

Sincerely,

Kathleen

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