Department of Environmental Horticulture • University of California, Davis

GROWING Points

http://envhort.ucdavis.edu

Three EH Faculty Take Up Residence in New Plant and Environmental Sciences Building

by Linda Dodge

The UC Davis campus is currently experiencing a building boom as a result of growing enrollment and changes in curriculum and research needs. The Environmental Horticulture Department is benefiting directly from the recent completion of one of these major facilities. The new Plant and Environmental Sciences Building rises imposingly between Veihmeyer and Hunt Halls, occupying the former home of the old Agronomy greenhouses. EH faculty members Alison Berry, Michael Barbour and Truman Young are in the process of setting up their laboratory and office space in this beautiful state-of -the-art building.

Building Background

In 1997, discussions within the College of Agricultural and Environmental Sciences identified the need to enhance collaboration between the plant sciences and environmental sciences, two areas of traditional academic strength on the UC Davis campus. The idea of housing these two disciplines in the same facility would serve to form new physical and programmatic linkages as well as replace aging and obsolete laboratory and office space. Funds to build the planned $40 million dollar facility were provided by the 1998 Proposition 1A K-Higher Education Bond Act, the College of Agricultural and Environmental Sciences and the UC Davis campus. Completed in early 2002, the Plant and Environmental Sciences (PES) Building has three stories and a total of 125,000 square feet of teaching facilities, 54 research laboratories and faculty offices. Faculty, staff and students from the Departments of Agronomy and Range Science; Land, Air and Water Resources; Environmental Horticulture; and Environmental Science and Policy are currently taking up residence.

The PES Building is the first in the nation to use the newest structural steel system designed to resist earthquakes, a unique seismic bracing system developed in Japan. Diagonal steel braces have been installed that are smaller than those in conventional systems, but are encased in mortar that, in an earthquake, will keep the steel from buckling. The patented system is also designed to protect the building's contents. In tests conducted at UC Berkeley, the braces withstood pressures equivalent to the Northridge, Loma Prieta and Kobe (Japan) earthquakes.

Other features of the PES Building include sophisticated systems for vacuuming, air control, natural gas and safety.

Unlike many older labs on campus, the new PES labs will be able to maintain both temperature and air pressure when conducting experiments. In addition, the courtyard at the south side of the building will have a demonstration crop plot area and a soil display area featuring samples from the Pacific to the Sierra.

Plant and Environmental Sciences Building, UC Davis. Veihmeyer Hall is at bottom left and Hunt Hall is at bottom right. (www.ae.ucdavis.edu)

Impact on EH

Because their research interests are closely tied to the environmental sciences, Alison Berry, Michael Barbour and Truman Young were invited to move their laboratories and offices to the PES Building.

Continued on page 2

Continued from page 1

They are currently settling in on the second floor- Barbour and Young have adjoining labs and Berry's lab is in close proximity.

Alison Berry, in particular, was grateful for the change of scenery. She and her students had long been challenged by the cramped quarters at EH. She now has ample room to house her many temperature chambers, HPLC equipment and gas chromatograph. In addition, her new lab has three large fume hoods, two halogen lamps suitable for short-term plant growth experiments and desk space for four students. The benches in her lab alone seem to have more power outlets than all of EH's labs combined and several network connections are available for computers.

Michael Barbour and Truman Young were formerly housed in the urban forestry building at EH and, although these facilities are newer than the rest of the complex, these two professors had no "wet lab" space. At the PES Building, they now find themselves in possession of state-of-the-art laboratories with more fume hoods and sinks than they know what to do with. Their offices are close by and Young has office space for his graduate students.

Berry, Barbour and Young look forward to collaboration with faculty in the other departments housed in the new PES Building. There will also be easier access to analytical equipment that, in the past, meant transporting delicate samples across campus. EH Department Chair Heiner Lieth is quick to point out that these new laboratories are also now part of EH facilities, and they are becoming known as "EH North".

The opening of the Plant and Environmental Sciences Building begins a new chapter in teaching and research at UC Davis. Environmental Horticulture faculty are happy to be a part of this new, multidisciplinary approach to solving problems and making progress in the plant and environmental sciences. GP

Dr. Alison Berry and doctoral student, Rik Smith, discuss plans for organizing their new lab.

PES Building Dedication Set for September 2002

A campus-wide event, scheduled for September 23, 2002, will mark the formal dedication and opening of the Plant and Environmental Sciences Building on the UC Davis campus. Completed in early 2002, the three-story, 125,000 square-foot structure, located north of the UCD Quad, contains state-of-the-art teaching facilities, research laboratories and faculty offices reflecting a multidisciplinary approach to instruction and research in the plant and environmental sciences.

Chancellor Larry Vanderhoef, Provost and Executive Vice Chancellor Virginia Hinshaw , and Neal Van Alfen, Dean of the College of Agricultural and Environmental Sciences will preside over the dedication, set to begin at 11:00 AM with a reception to follow. Faculty, staff and students in the Departments of Agronomy and Range Science; Land, Air and Water Resources; Environmental Horticulture; and Environmental Science and Policy will be on hand to guide guests through the facility on tours from 11:30 AM to 3:00 PM.

ISA Authors Citation Named in Honor of Dr. Richard Harris

At its recent annual meeting in Seattle, the Board of Directors of the International Society of Arboriculture (ISA) voted to rename its Authors Citation in honor of EH professor emeritus, Dr. Richard Harris. At the urging of ISA's Western Chapter and with special effort on the part of EH alum Jim Clark of HortScience, Inc. in Pleasanton, the award will now be known as the Richard W. Harris Authors Citation. This award is given by the ISA to authors of outstanding publications in the field of arboriculture. This change honors Harris' significant contributions to the development and growth of the arborist's profession, particularly in the area of publications.

Dr. Harris has been a leader in arboriculture and the ISA throughout his career. It would be the rare arborist who was unaware of Harris' *Arboriculture* book. While originally conceived as a textbook, *Arboriculture* has also become the standard resource for practicing arborists. Harris also served as the primary author of several editions of the *Guide to Plant Appraisal*. While these two publications serve as his most prominent works, Harris is the author of over 100 articles in scientific and professional publications including chapters on tree care in popular gardening books.

Dr. Harris' superb service to the ISA parallels his writing achievements. He has served as President of both the Society and the Western Chapter. He provided long-term service as the Society's representative to the Council of Tree and Landscape Appraisers. Harris has received the Society's Award of Merit, Award of Arboricultural Research and the Author's Citation.

Harris' contributions to the profession have been recognized by a number of organizations including the National Arborist Association, National Arbor Day Foundation, American Horticultural Society, California Park and Recreation Society and the American Association of Nurserymen. The University of California College of Agricultural and Environmental Sciences acknowledged the importance of Harris' career contributions with its Award of Distinction. He has admitted being most proud of the Distinguished Teaching Award from the University of California.

In addition to being a brilliant scholar and excellent communicator, Dr. Harris is modest and approachable, and freely shares his knowledge in an unassuming manner.

GP

Ralph Moore: The King of Miniature Roses *by Nancy Sweet*

Ralph Moore of Visalia, California, has been a pioneer in the rose breeding business for over sixty years and has introduced to the industry at least three hundred varieties of miniatures and other roses. Most of the miniature roses sold today were either bred by Mr. Moore or are descended from his hybrids. Preservation of this incredible tradition is an important undertaking that is the focus of a project in the Environmental Horticulture Department at UC Davis. The objective of the project is to document Mr. Moore's extensive variety collection and to memorialize as much as possible his knowledge of hybridizing for use by future rose breeders.

According to Heiner Lieth, chair of Environmental Horticulture at UC Davis, the department is currently exploring the possibility of establishing a faculty position as a resource for breeders to work on ornamental plants. It is envisioned that such a position would oversee the development of rose varieties consistent with the department's emphasis on environmental stewardship and sustainability. Dr. Lieth stated, "Mr. Moore has proposed to provide his entire germplasm collection to us. This would allow us to start moving rapidly in the direction of an EH specialty in the breeding of ornamental plants. Development of a description of the Moore collection is an important element in the future success of such a position."

Preservation of Ralph Moore's unique perspective and talent through records of his contributions to the rose world will provide a valuable resource to academic and commercial rose constituencies. Mr. Moore's extensive hybridizing program has been recognized worldwide by many honors. He is generally accepted to be the "father" of modern miniature roses. Mr. Moore was a recipient of the 1998 Award of Distinction from the College of Agricultural and Environmental Sciences at UC Davis. He is the only living American to wear the prestigious Dean Hole Medal – the highest honor of the Royal National Rose Society of England. Mr. Moore has also received the Gold Medal of the World Organization of Rose Societies. He was awarded the American Rose Society (ARS) Gold Medal and twenty ARS Awards of Excellence for hybrids developed between 1975 and 1998.

Ralph Moore, Sequoia Nursery, Visalia

Background on miniature roses

Ralph Moore is most respected and widely known for his extensive body of work with miniature roses. Miniature roses as a class appeared in the 1800s but did not attain popularity at that time. In 1917, a tiny pink miniature fairy rose, *Rosa* 'Roulettii', was discovered in Switzerland and propagated throughout Europe. Ralph Moore began growing rose seedlings while still in high school in the 1920s. After sowing seeds collected from a huge plant of a climbing 'Cecile Brunner' from a neighbor's garden, he grew a small (three foot) climber with baby pink, one-inch double blooms. This plant inspired his later work with miniatures, which began in the 1930s.

Moore saw his first true miniature, the 'Roulettii', in 1935 and thereafter obtained two key plants which served as the source for most of his own unique miniature hybrids - 'Tom Thumb' (an offspring of the 'Roulettii') and 'Oakington Ruby' (a dwarf plant with tiny leaves and rich, scarlet red blooms, found in England in 1933). These two major influences, along with the 'Cecile Brunner' and two Asian imports (species *Rosa wichuraiana* and 'Old Blush'), comprised the foundation of the miniature rose breeding program that thrives today at Sequoia Nursery in Visalia, California, founded by Moore in 1937. Moore's first miniature variety was introduced in the 1950s as 'Pink Cameo' (an ever-blooming miniature climber). Another early miniature variety (1960) was grown from a self seedling of a China rose named 'Old Blush'; the result was 'Mr. Bluebird', a compact, bushy plant with lavender-blue flowers. The collection that EH will catalogue, along with hundreds of new hybrids in progress, is currently maintained at Sequoia Nursery in Visalia.

Rose database project

The EH project memorializing Moore's enormous contribution to the rose industry involves compiling a database specifying the qualities and ancestry of selected rose varieties which have been produced, as well as some which are still in progress. The database will include details related to parentage, plant characteristics, initial objectives sought by the hybridization, any problems occurring in the breeding process, and possible uses of the plant in future breeding efforts. Additionally, an historical record will be made of Mr. Moore's knowledge of hybridizing techniques generally and in specific reference to important hybrids.

During his career, Mr. Moore has developed many different forms of miniature rose blooms as well as new and interesting shrubs (lilacs, *Thuja*, crepe myrtle) and larger roses. His goals for hybrid rose production include that the rose be elegant (new and pleasing in form and color), grow on its own roots, and be hardy, easy to grow and disease free. Moore works with what he describes as a "mental blueprint" to reach his objectives and is able to explain the facts and considerations behind the creation of each of his many roses.

Rose breeding Moore-style is a combination of his unique creative vision with much patience. He often makes thousands of crosses to get one new rose. The combination of 'Tom Thumb' and a small, coppery-pink single-flowered climber called 'Carolyn Dean' yielded several successes. The attraction was the slender pointed buds characteristic of 'Carolyn Dean'. Persistent crossing of the two varieties for a period of 35 years resulted in the introduction in 1974 of 'Sheri Anne' (with interesting colors). The patience required of Moore's breeding program is illustrated by the success of his

Continued on page 4

Continued from page 3

first miniature moss rose, which involved thousands of crosses in a complex process spanning 40 years. Another progeny of the 'Tom Thumb'-'Carolyn Dean' combination was 'Zee', which was one of the special parents in the Moore breeding program by becoming the male (pollen) parent of numerous important miniature varieties, including 'Yellow Doll', 'Pink Cameo', 'Fairy Princess', and 'Magic Wand'.

Ralph Moore's innovations appear in flowering habit and the use of difficult varieties to achieve unusual new plant traits. His roses bloom in many forms- from open, semi-double blooms, to perfect singles, very full doubles, and classic hybrid tea forms.

'Scarlet Moss' (www.sequoianursery.biz)

Varieties include moss roses, striped roses, hybrid bracteatas, and plants with features uncommon in roses, such as the dahlia rose (pointed petals) and roses with petals like oak leaves.

Moss Roses

Rosa centifolia muscosa appeared in France as early as 1696 and possessed a decorative moss-like growth on the buds of the roses. This distinctive trait is a result of a genetically-modified thorn ("thorn type") or abnormal growth of the mossy or frilled margins of the sepals ("crested type"). The breeding process with moss roses is especially problematic due their tendency to be sterile. Mr. Moore has actively developed the modern miniature moss rose since 1948. His initial goal was to create ever-blooming, bush-type hybrid tea and miniature roses with a good moss sepal in a variety of colors. Moore's first miniature moss rose was 'Fairy Moss', a vigorous (climbing) hybrid seedling made by crossing (Pinocchio x William Lobb, an old moss variety from 1855) x 'New Penny'. 'Fairy Moss' set viable seed, produced good pollen and was a fertile parent for successive plants, including 'Kara'. 'Kara', a tiny moss rose whose small bud opens into a single rose-pink flower, was introduced in 1973 after 25 years of breeding trials. 'Strawberry Swirl', a striped strawberry-pink and white moss rose with double, one-inch flowers, followed in 1978.

Striped Roses

A childhood fascination with rainbows inspired the creation of Moore's striped roses line. The miniature 'Stars 'n Stripes' (red and white stripes) was presented in 1976 to celebrate the United States' bicentennial. His ground-breaking work in this area proved for the first time that stripes in roses could be inherited or genetic through the male (pollen) parent, rather than limited to mutations or roses with a viral condition. Moore's success with modern repeat-bloom striped miniatures contributed to the subsequent production of such standard-size striped ARS award winners as 'Scentimental' (red and white stripe) in 1997. His efforts have now carried the crossing of his striped roses into the fourth and fifth generations, producing mossy striped roses, a striped miniature with petunia-like flowers and a rare red and yellow stripe.

Bracteata Roses

One of the key breeders in the Moore collection is a species or wild rose called *Rosa bracteata***,** also known as the Macartney Rose. This disease-resistant variety was brought to the UK from China in 1793 and has thick, glossy, dark evergreen foliage. Most bracteatas are tall and bloom only once late in the year. Their pure white, five-petaled flowers are strongly scented. *Rosa bracteata* is one of the parents of the classic climber 'Mermaid' (1917). The pollen of *R. bracteata* is only slightly potent, which makes using it for hybridizing a challenge. Very few hybrids have been created.

Ralph Moore saw the value of the bracteata rose as key to his breeding program for the traits of hardiness and growth of the rose on its own rootstock. His creativity and perseverance resulted in the creation of a stunning hybrid from *R. bracteata* called 'Out of Yesteryear' (1999). 'Out of Yesteryear' is a four-foot shrub with very double white blooms and glossy, deep green foliage. It is hardy and disease-resistant. 'Out of Yesteryear' has proved prolific for further hybridization of the bracteata line, siring a yellow climbing moss hybrid and precursing three lovely and vigorous new Moore releases in 2002: 'Precious Dreams' (a soft pink, very double English-style flower on a compact plant); 'Stardust' (a very double white miniature with quilled petals); and 'Tangerine Jewel' (a small bushy plant with single orange flowers and yellow centers).

Mr. Moore, at the age of 95 years, continues to innovate by working with one of the "most difficult of species", 'Hulthemia persica', crossing it with some of his own Halo varieties. Hulthemia are traditionally single-flowering (Spring) roses which flower buttercup yellow with a scarlet eye, like a cistus. Moore has flowered some third generation hybrids from the species Hulthemia, with the ambitious goal of carrying the red centers from the species rose to the new miniature hybrids through the Halo varieties. The desired effect is achieved by crossing the species several times in parallel lines and ultimately re-crossing the successive hybrids. The goal is reproduction of the wild characteristic of dark or red centers in the new hybrid. Another encouraging sign in this process has been the tendency of one of the Hulthemia hybrids to repeat into the Fall.

Ralph Moore's 'Stars 'n Stripes' rose

Ralph Moore is gracious in stating that rose hybridizers, including himself, stand on the shoulders of those who went before them. It is the dream of the elusive "perfect rose" which keeps he and other breeders working and hoping. Mr. Moore is frequently asked which rose is his favorite rose. He has given the following answer: "My favorite rose?… The one I haven't made yet…because it is perfect." GP

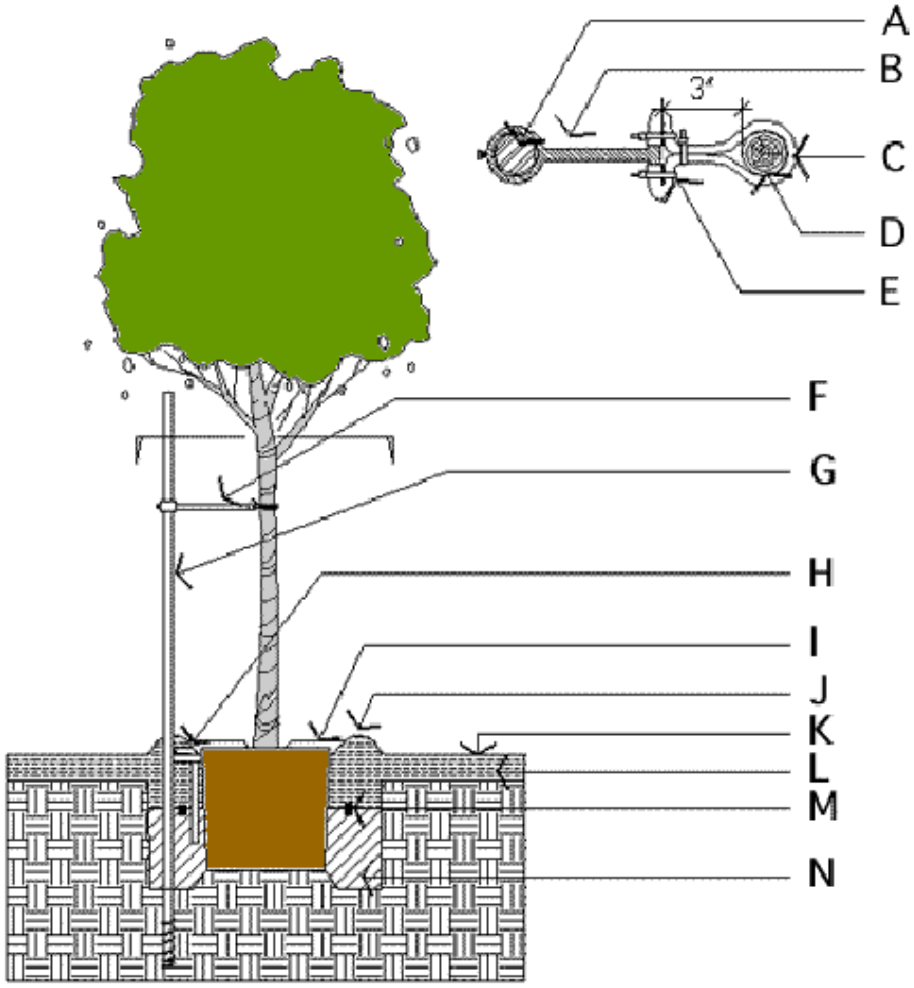
UC Davis Alum Designs New System for Staking Trees

When Visalia native Brian Kempf observed his father struggling with a traditional wooden tree stake and unable to get it into the hard Central Valley ground, he decided there had to be a better way. He set himself to the task of inventing a better tree stake. He came up with the unique idea of a single metal stake with the bottom several inches fashioned as a screw-in auger to ease the job of putting it in the ground. Brian wrote a patent for what is now known as the "Reddy Stake System", a screw in auger-type steel stake with adjustable height 'T'-bar, UV-resistant vinyl tubing, 2 cable ties and anti-rotational tab and pin.

At about this same time in the early 1990s, Brian was a student at UC Davis studying Regional Planning and Analysis. He began manufacturing his new tree stake in his Davis garage and drove around the state showing it to as many people in the nursery and landscape industry as he could. While taking one of Dr. Sy Gold's courses in the EH Department, Brian showed Dr. Gold his new tree staking system. Dr. Gold was impressed and encouraged Brian to show the design to Dr. Richard Harris, another EH professor and world-renowned authority on trees and arboriculture. Dr. Harris, too, was impressed and set up trials using the new staking system in various tree plantings around campus and the city of Davis.

The rest, as they say, is history. Brian was able to license his invention to a company in Turlock (www.reddystake.com) which now produces the "Reddy Stake" in seven- or nine-foot lengths, the eleven-foot "Mega Stake" and a modified stake for use with tree grates. The stake is designed to be installed on the prevailing wind side of a tree (when in leaf). The adjustable T-bar rod is then positioned at the right height to hold the tree straight but allow bending and flexing of the trunk with the wind. A vinyl strap is then attached to the T-bar rod and fastened around the trunk. Another interesting feature of the staking system is an anti-rotational tab and pin mechanism that goes in the ground next to the stake to prevent its movement.

Caltrans has now approved the Reddy Stake system for use in its tree planting projects statewide. Recent notices from the EPA regarding the leaching of arsenic compounds from pressure-treated wood have also stimulated interest in this steel staking system. The fact that it is recyclable makes the system appealing to those environmentally conscious members of the green industry.



(A.) The Reddy Stake (B.) T-bar rod (C.) UV resistant vinyl fold and secure (D.) Tree trunk (E.) Zip tie (3) (F.) T-bar rod (G.) The Reddy Stake system (H.) Tab and anti-rotation pin (I.) 2 inch layer mulch. Hold away from trunk. (J.) Watering basin at edge of rootball (K.) Finish grade (L.) Surface amended soil (M.) Fertilizer tablets (N.) Unamended site soil (diagram from www.reddystake.com).

These days, Brian Kempf works as a consultant and as director of the Urban Tree Foundation (UTF). Based in Visalia, this organization (www.urbantree.org) provides services and programs to benefit the urban forest throughout California. Founded in 1999, UTF is dedicated to promoting and preserving the urban forest through education, planting and tree care. In collaboration with public and private agencies, UTF assists communities in becoming active partners in the planting and maintenance of the urban forest. Brian is also working tirelessly with the Quality Tree Committee, a group of urban foresters, municipal arborists, nurserymen, academics, and other tree care specialists. This group has developed guidelines for the production and specification of quality containerized nursery trees (see Growing Points Fall 2001). Committee members are now conducting workshops for growers and landscapers to develop ways to implement these changes which, in the long run, will result in longer-lasting, structurally sound trees to beautify and benefit the urban forest. GP

Notes From the Chair... by Heiner Lieth

Those of you who keep close tabs on the EH department know that my first year as chair is now behind me. I feel compelled to honor the occasion with some reflections on the situation. One thing that I found very interesting (foreboding) was that whenever I mentioned to someone that I am the new EH chair, they would invariably express condolences first, followed secondly by congratulations. This was the case even before the grim budget situation started presenting itself. It took me a while to figure out what that was about.

I have to honestly say that I love the job and am having a great time. The department has its problems, just like every other department, but I feel that it has tremendous potential and an excellent prognosis for the future. We have excellent staff and faculty (far better than most, in my opinion) and everyone is working hard to sustain our high level of productivity. The Dean has assured me that EH would be targeted for growth and he has been very happy with my efforts to lead the department and to encourage the various Environmental Horticulture industries to support us.

At this writing we are still waiting for the State Budget to be passed, but the belt-tightening has already started. We in EH have no intention of shutting down; and possibilities for finding greater efficiencies have already all been exploited. Thus our main recourse is to seek additional income via other sources to offset the reduction in public funds. This means that we must be more vigilant in finding financial support from our production and landscape industries. I feel confident that we will be successful, because we have an excellent track record in doing research that is responsive to the needs of California.

We also have a great teaching program that is designed to meet the needs of the EH industries in California. The undergraduate major Environmental Horticulture and Urban Forestry was reviewed this past year and we recently received a report. It provided us with feedback in all areas, with specific recommendations for improvements. It also showed that our alumni were very happy with the education they received and our current students feel that they are getting an excellent education. We received particular praise for our internship opportunities (which, I am grateful to say, many of you provide) and for having such an excellent advising associate (**Lisa Brown**).

We are also beefing up our extension efforts. We have been recruiting for a Landscape Specialist and hope to be able to make an important announcement shortly. Look for more information on this in the next issue of *Growing Points*.

Thus I am happy to report to you that the EH department facilities are expanding (see article on page one about the PES building), the faculty is expanding, our efforts to be more responsive to the needs of clientele are increasing and we are optimistic about our future. Thus as chair I am happy with the state of things at the end of my first year.

In other news...

EHUF grads on their way

On June 14th, the EH Department celebrated the graduation of EHUF's Class of 2002. As usual, the staff (under the guidance of **Lisa Brown**) provided a delicious buffet while individual students were recognized by the courtyard gathering for their academic achievements. **Michael Jalili, Mike Kabler, Carolyn Norris, Rose Pearl, Jason Perko, Dan Staley** and **Nancy Strahan** (Fall 2001) were all congratulated for completing their degrees. In addition, **Melissa Rathje** graduated with High Honors and **Kate Keck** graduated with Highest Honors. Also recognized were graduate students who received their degrees during the 2001-2002 academic year: **Loren Oki** - PhD, Ecology; **Ling Sun** - MS, Horticulture & Agronomy; and **Nancy Tamayo** - MS, Horticulture & Agronomy. Congratulations, everyone!

Grad Student News

Tom Rambo just received a $3000 grant award from the UC Davis Public Research Program's "Challenges to California's Natural Resources" RFP. This money will help support his forest canopy epiphyte research in conjunction with the Teakettle Ecosystem Experiment (teakettle.ucdavis.edu). **Ellen Martin** received a grant award from the American Orchid Society to support her research.

Faculty Activities

Tom Ledig received a grant from the University of California Institute for México and the United States (UC MEXUS) for a study entitled **Recent Glacial and Postglacial History of Spruce (*Picea*) in Northern México.** In collaboration with **Celestino Flores López** and the Universidad Autónoma Agraria Antonio Narro, Saltillo, Coahuila, and **Steve Jackson**, paleoecologist from the University of Wyoming, Tom will study populations of an endangered spruce, *Picea mexicana*. The team will explore the palynological evidence to try and extend our knowledge of the movements of spruce during the late Pleistocene and Holocene eras. We know that spruce occurred around the basin of Mexico City as recently as 9000 years ago, but then it suddenly disappeared and is now only found in remote, isolated pockets 500 to 700 km north of Mexico City.

Jim Harding and Heiner Lieth congratulate Kate Keck on her graduation with Highest Honors.

Visiting Scholars

Former EH postdoc, **Dr. Athar Tariq**, has been working for the past several years as an Associate Agricultural Biologist with the California Department of Food and Agriculture. Dr. Tariq was recently recognized as the "International Personality of the Year" by Cambridge (UK) for his contributions to agricultural research. His work on exploring

Continued on page 8

Professor Seymour M. Gold, 1933-2002

Professor Seymour (Sy) Gold passed away in March 2002 after a lengthy illness. Dr. Gold served as a University of California professor for 30 years in the departments of Environmental Horticulture and Environmental Planning and Management at UC Davis. Sy taught classes in urban and regional planning and recreation planning, authored over 250 journal articles in his research field of environmental planning, and wrote two books, *Recreation Planning and Design* and *Urban Recreation Planning*. As a national and world-renowned authority on park and recreation planning and management, Sy contributed his expertise to many professional groups and recreation agencies. He was also deeply involved over the years in issues and projects at the community level in Davis and beyond.

Dr. Gold earned graduate degrees from Michigan State University in park administration and from Detroit's Wayne State University in urban planning. He completed his Ph.D. at the University of Michigan in urban and regional planning and joined the faculty at UC Davis in 1969. His research interests included park and recreation management, playground safety, the phenomenon of non-use of neighborhood parks, open space preservation and community development.

In 1981, Sy helped develop playground safety standards for the US Consumer Products Safety Commission and served as a consultant for this group on many other issues. He was a Founding Fellow of the Academy of Leisure Sciences, a Regent of the Pacific Risk Management School and a member of the Recreational Safety Committee of the National Safety Council. In 1995, Sy received the Professional Honor Award from the National Recreation and Park Association for "outstanding contributions to the park and recreation movement in America". In that same year, he was recognized by the University of California with the Distinguished Public Service Award. Sy served as a consultant on California's Playground Safety Law (SB2733) that was implemented in 1996 and was the first bill of its kind in the nation. He also participated as technical advisor in the production of several instructional videos on playground hazards and inspection made for younger audiences. *GP*

Fire Hazard Ratings in South Lake Tahoe May Not Protect Homeowners

DAVIS, CA, July 11, 2002. The Gondola fire on July 3, 2002 was a wake up call for most South Lake Tahoe homeowners on the importance of fire safety around homes. Most homeowners just didn't think they were at risk because there hasn't been a fire in a long time. They now know that this was a false sense of security. For years, homeowners have been asked to create defensible space at least 30 feet around their home, or to the property line if it is nearer, and prune trees and remove ladder fuels. This is a requirement under the California Public Resources Code (PRC) 4291. However, Dr. Lisa de Jong at the Center for Urban Forest Research says, "This law may not be sufficient to protect homeowners with small lots. Though compliance with PRC 4291 may increase fire safety, many residents in the urban-wildland interface do not comply because they just don't think it could happen to them. Unfortunately, these non-compliant homeowners adversely affect the fire hazard of all their neighbors."

The urban forest of South Lake Tahoe is a complex matrix of fuels that poses a significant risk to homes and businesses. Just cleaning up parcels may not be enough. According to Dr. de Jong, "the combination of small lot size and non-compliance with PRC 4291 poses a significant barrier to effective individual and community fire hazard mitigation. Not enough people are actively involved in compliance and even if they have made the effort to protect their home they may still be at risk if their neighbor is not compliant. Fire safety is not an individual effort, it requires the active participation of all homeowners and businesses to create a FireWise community."

The Center's research reveals several interesting findings that should be cause for concern among residents. The citywide non-compliance rate for defensible space is 86%, the citywide non-compliance rate for landscape maintenance is 66%, and over 57% of the parcels are non-compliant for both defensible space and maintenance. The Center's report describes a fire hazard assessment conducted on private, developed lots in South Lake Tahoe. The fire hazard was rated according to the national standards in NFPA 299, homeowner compliance with PRC 4291, the type of construction materials used in homes, irrigation practices, and the influence on a parcel's fire hazard by neighbors.

The city has good roads, available water, signage, and the presence of firefighting resources, which could add to homeowner ambivalence. However, the analysis of the components that involve homeowner choice, such as defensible space, landscape maintenance, irrigation, and building construction, reveals a very hazardous situation - the majority of homeowners just aren't in compliance. The problem is compounded by the fact that the area is dominated by small lots, and the required amount of clearance to reduce fire hazard just can't be achieved in some cases. This indicates that a different approach to fire hazard assessment in South Lake Tahoe is needed if we want to know the true fire hazard of an individual parcel. The hazard assessment must consider homeowner practices, lot size, and neighboring fire hazards. Results will serve to focus efforts on obtaining community participation to improve fire safety for everyone. *GP*

Continued from page 6

new nodulated flora is a major effort in utilizing natural resources for increasing soil fertility.

Staff News

Greenhouse crew member **Mitch Bunch** was recently promoted from senior nursery technician to principal agricultural technician in recognition for his increasingly valuable role in the department. Joining the greenhouse crew for the summer are **Devin Jennings, Ning Lee** and **Jon McGuire**. One of their principal tasks will be to renovate the famous EH putting green for a turf study to be conducted by **Dave Burger**. **Linda Dodge** will spend two months in Xiongyue in the Chinese province of Liaoning (northeast of Beijing) conducting a horticulture short course in English for students at an agricultural vocational institute. Look for an account of her adventures in the next issue of *Growing Points*.

Alumni News

Ellen Zagory (M.S. 1981), project manager for new garden installations at the UC Davis Arboretum, co-authored an article in the July/August/September 2002 issue of *Pacific Horticulture* along with **Diane Cary**, the arboretum's communications director. Entitled "Central Valley Gardening, Mediterranean Style", the article features the newly-developed Arboretum Terrace home demonstration garden, located in a shopping center at the east end of the arboretum. On display are new plant introductions suitable for the Central Valley climate as well as the "Arboretum All-Stars"-plants known to be reliable and easy-to-grow.

The Arboretum Terrace Home Demonstration Garden at the east end of the Davis Arboretum.

Sara Jungblut, a Spring 2001 EHUF graduate, is now a certified arborist in the Midwestern chapter of the International Society of Arboriculture.

Urban Forestry News

Summer interns **Ara Erickson** and **Christian Torres** have joined the staff of the Center for Urban Forest Research. Ara is researching the costs associated with implementing firewise landscapes in South Lake Tahoe and assisting with the redevelopment of the center's website. She is pursuing an M.S. in Forest Resources with an emphasis in urban forest planning and management at the University of Washington. Ara graduated from UC Berkeley with a B.S. in Resource Management, where she spent her summers as a student and then a teaching assistant at Forestry Summer Camp and as a field technician for the silviculture lab. Christian is participating in an internship program through the Hispanic Association of Colleges and Universities and the USDA Forest Service. He is working at the Center for six weeks, assisting with the website and gathering contact information for urban forestry organizations across the country. Christian will also be working with the Sacramento Tree Foundation, Oakland ReLeaf, CalPoly, and Shasta-Trinity District during his ten-week stay in California. He is pursuing a Bachelor's degree in Horticulture from the University of Puerto Rico. GP

For free subscription, contact Linda Dodge, Managing Editor
Environmental Horticulture Dept., University of California, One Shields Ave., Davis, CA 95616
Phone: (530)752-8419; Fax: (530)752-1819; E-mail: growing@ucdavis.edu
Download back issues of Growing Points (PDF format): http://envhort.ucdavis.edu

Cooperative Extension
U.S. Department of Agriculture
University of California
Oakland, CA 94612-3560

Mail ID: 6556
Official Business
Penalty for Private Use: $300

An Equal Opportunity Employer