



PROHORT

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Autumn 1992

PROHORT seminars for professionals are planned and conducted cooperatively by Urban Horticulture, University of Washington, and Cooperative Extension Service, Washington State University. Edmonds Community College and South Seattle Community College also assist cooperatively.

PROHORT SEMINARS

**PRE-REGISTRATION
REQUIRED FOR ALL
PROHORT SEMINARS**

WETLAND RESTORATION DESIGN WORKSHOP

November 12, 8:30 a.m. to 4 p.m.
Center for Urban Horticulture
\$65, includes lunch
Limited Enrollment

This workshop will provide hands-on experience in restoration design. Instructors will provide historical information, site maps, vegetation lists, streamflows, information regarding comparison wetlands, and more, for four case study projects. Under the guidance of the Instructors, participants will work in teams on one of these case studies to develop an appropriate restoration design by considering engineering, hydrology, soils, vegetation, wetland function, and monitoring issues. Each of the four projects will then be summarized for the entire audience at the end of the day. Come prepared to think, share, discuss, question, debate, and learn!

Instructors: Nancy Strayer and Dr. Stuart Paulus, Raedeke & Associates; Ron Van Bianchi, Pacific Wetlands Nursery; Diane Sheldon, Sheldon & Associates; Kevin Fetherston, University of Washington

J. C. RAULSTON: TIME IN THE LANDSCAPE

November 19, 9 a.m. to Noon
Center for Urban Horticulture
\$17

Roots rip out sidewalks, hollies shade out the hostas, and ivy chokes out everything. In other words, landscapes evolve with time and they don't always evolve gracefully. Dr. J. C. Raulston of The North Carolina State University Arboretum will present ideas for planning and planting landscapes using the mature landscape size and feel as your design guide. He will discuss design of new plantings, renovation and refurbishing of older plantings, and manipulation of mature landscapes. Learn how plant selection impacts design over the life of the landscape.

Speaker Profile: Dr. Raulston's plant introduction program at The NCSU Arboretum is among the most prolific in the U.S. for supplying new selections from around the world to American nurseries and gardens. The NCSU Arboretum collections contain over 8,000 taxa of ornamental plants, and have distributed more than 50,000 plants and 2 million cuttings to the nursery industry and public gardens. J. C. has received many individual honors, including the Horticultural Communications Award from the American Horticultural Society. This past summer, The NCSU Arboretum received the American Association of Botanical Gardens and Arboreta Award for Program Excellence.

APPLICATOR'S UPDATE

December 14, 9 a.m. to Noon
Center for Urban Horticulture
\$17

This Seminar earns 3 hours WSDA Pesticide Recertification Credit

I. WSDA UPDATE

Representatives from the Washington State Department of Agriculture will present information regarding pesticide storage and disposal, record keeping, and other regulatory issues.

II. SPRAYER PREP AND CALIBRATION

Dr. Gary Thomasson, Extension Pesticide Education Specialist from WSU-Puyallup, will review preparation and calibration techniques for a range of landscape-use pesticide application equipment. Participants will then rehearse these skills by completing a worksheet of sample calibration calculations.

DR. J. C. RAULSTON PRESENTS NEW PLANTS FOR HOME GARDENS

Date & Time: November 18, 7 to 8:30 p.m.

Fee: \$10, pre-registration required

Plant enthusiasts are constantly seeking new specimens to broaden the palette of colors, textures and forms used in the garden. Dr. Raulston will discuss some of the newest introductions available to gardens, many from his prolific plant introductions program at The North Carolina State University.

Registration information
See page 3

OTHER EDUCATIONAL RESOURCES

PERENNIALS SYMPOSIUM:

BORDERING ON THE FUTURE

Date & Time: October 24, 8:30 a.m. to 4 p.m.

Fee: \$45, includes lunch; pre-registration required

Topics & Speakers:

Passion For Perennials—Christopher Woods, Executive Director, Chanticleer Gardens, Pennsylvania

Exciting New Plants—Barry Yinger, Director, Leonard J. Buck Gardens, New Jersey

Garden Literature—Sue Buckles, Horticulturist, Seattle

Foliar Framework—Jerry Sedenko, Garden writer and designer, Seattle

PROPAGATION TECHNIQUES: CUTTINGS, DIVISION AND AIR-LAYERING

Instructor: Scott Vergara

Dates & Times: Two-part Course; October 5, 7 to 9 p.m. and October 10, 8 to 11:30 a.m.

Fee: \$27

Combination lecture and hands-on laboratory class, focusing on tools, timing and techniques. Call for more information.

LANDSCAPE DESIGN SERIES

Four basic design courses for entry level professionals. students, homeowners are being offered this autumn. Individual courses include: Fundamentals of Landscape Design; Designing a Basic Landscape; Designing the Low Water Use Landscape; Designing the Mixed Border. For more information on dates, fees, instructors, call the Center at 685-8033.

Edmonds Community College Fall Courses: Introductory Horticulture, Greenhouse Studies, Landscape Studies, Fall Plant ID, Sprinkler Repair & Installation, Compost, Plant Materials, Design, Landscape Business Practices, Basic Layout, Native Plant ID, Diseases, Call 771-1679 for registration information.

South Seattle Community College Fall Courses: Landscape Industry, Greenhouse Operations, Broadleaf Evergreen ID, Landscape Design, Maintenance Estimating and Bidding, Horticulture Science, Advanced Plant ID, Weed ID & Management, Drainage & Irrigation Systems, Small Business Management, Landscape Construction; **Fall Short Courses:** Water Gardens, Fragrance in the Garden; Small Trees for Northwest Gardens. For registration information, call 764-5336.

Lake Washington Technical College: Pruning & Landscape Renovation, Attracting Wildlife to the Landscape, Fall Plant ID, Landscape Irrigation Basics, Native Plants of Washington, Xeriscaping. Phone 828-5605 for more information.

PROHORT BOOKSHELF

by Valerie Easton

New books at the Miller Library of interest to landscape professionals. Miller Library is open 9 a.m. to 8 p.m. Mondays, and 9 a.m. to 5 p.m., Tuesday through Friday; call 543-8616 for current hours.

Aldrich, Robert A.; Bartok, John W. *Greenhouse Engineering*, 2nd rev. ed. Ithaca, NY; Northeast Regional Agricultural Engineering Service, 1990.

Deno, Norman C. *Seed Germination Theory and Practice*. State College, PA; Norman C. Deno, 1991.

Glattstein, Judy. *Garden Design with Foliage*. Pownal, VT: Storey, 1991.

Joyce, David. *The Complete Guide to Pruning and Training Plants*. New York: Simon and Schuster, 1992.

Kourik, Robert. *Drip Irrigation: For Every Landscape and All Climates*. Santa Rosa, CA: Metamorphic Press, 1992.

Manion, Paul D. *Tree Disease Concepts*. 2nd ed. Englewood Cliffs, NJ: Prentice-Hall, 1991.

Motloch, John L. *Introduction to Landscape Design*. New York: Van Nostrand Reinhold, 1991.

Relf, Diane. *The Role of Horticulture in Human Well-Being: A National Symposium*. (April 19-21, 1990; Arlington, VA.) Portland: Timber Press, 1992.

Salley, Homer E.; Greer, Harold E. *Rhododendron Hybrids: (Includes Selected Named Forms of Rhododendron Species)*. 2nd ed. Portland: Timber Press, 1992.

RESEARCH REPORT

TREE STAKES AND TREE WRAPS

by Dwayne Jones and Dave Stockdale

Most of the long-recommended tree planting and establishment practices have been re-examined over the past two decades. The horticultural practices that Dave first learned in college in the mid-70's are distinctly different than those studied by recent graduate Dwayne. Suggestions on planting hole sizes, uses of soil amendments in planting holes, and top-pruning of newly planted trees have changed.

Two practices still being questioned concern the uses of tree stakes and tree wraps.

In a recent *Urban Forests* article, Stanley Young reviewed tree staking recommendations. In the past, staking was an almost universally adopted practice thought to assist in tree establishment by lessening wind motion and correcting bad trunk angles. However, recent research from University of California at Davis, among other institutions, has shown that the gentle wind motion on a young tree actually promotes stronger trunk and better root system development. Furthermore, staking is not helpful for correcting bad angles. If a newly planted tree is at a bad angle—then replant it at the proper angle!

One of the few cases where the use of stakes seems appropriate is to help roots establish in areas where the root ball is prone to moving around in the soil. Even in this case, these stakes should be removed as soon as possible.

Unfortunately, as Young points out, in many communities regulations still require that stakes be installed. For

PROHORT Editorial Staff:
Dave Stockdale, Coordinator, CUH
Dr. John A. Wott,
Associate Director, CUH
George Pinyuh, WSU County
Extension Agent—Horticulture

instance, Los Angeles street trees must be planted with 10 foot metal stakes—at \$17 apiece.

If and when stakes are used, it is important to remember that they are temporary aids. The tree management plan must include a stake removal deadline. The worst danger to the tree from the use of stakes are the wires, ties, and tape that are left on long after the stake has served any usefulness. Girdling is a common problem.

The city of Milwaukee color codes stakes to indicate the season and year they were installed. That information is stored in their computerized tree inventory. Computer records and color coding make for fast locating and removal of stakes at the proper time.

In Oakland, arborists are using canvas webbing in loops as a replacement for wires and ties. If stake removal is overlooked, the canvas webbing will break apart after about a year.

Tree wraps are also often mismanaged. Traditionally, these wraps have been used to lessen summer and winter sunscald, rodent damage, and equipment damage. According to a recent *Journal of Arboriculture* report by Bonnie Appleton and Susan French, current texts, planting guides, and bulletins still recommend tree wraps without regard to tree species, location, or microclimate. More often than not, the wrap may do harm by

providing an ideal setting for insect or disease development. Some metal or plastic tree wraps may eventually girdle the trunk if not removed. The American Forestry Association and many members of the International Society of Arboriculture (ISA) currently do not recommend the use of tree wraps.

Materials often sold for wraps include paper, whitewash, slaked lime, burlap, polyurethane, aluminum pipe, urethane foam, and various types of paints. A 1991 survey of ISA members indicated that most of the respondents only used tree wraps when they felt they were definitely needed. More than half of these professionals used paper wraps, while about one-fourth used commercially made plastic guards. Homemade plastic guards, burlap and paint were some of the less-frequent choices.

The survey respondents declared their primary reason for use of a wrap was for sunscald protection, followed by avoidance of damage from mowing and trimming equipment, and animals. Many nurseries are now marking their tree trunks to indicate solar orientation in the field. Sunscald can be lessened if the tree is planted with the same orientation in the job site as in the production nursery. Mower damage can be lessened if turf is not allowed to grow right up to the tree trunk, but replaced with mulch instead.

Horticultural myths continue to be shattered by solid research. Current research suggests that tree stakes and tree wraps are usually not needed. When they are used, their removal must be outlined in your management plan.

For more information, read:

Appleton, Bonnie L.; French, Susan. "Current Attitudes Towards and Uses of Tree Trunk Protective Wraps, Paints and Devices." *Journal of Arboriculture*, Vol. 18, No. 1; January, 1992.

Young, Stanley. "To Stake or Not To Stake." *Urban Forests*, Vol. 12, No. 2; April/May 1992.

PLANT PROFILE

by Timothy Hohn

ACER CAPILLIPES

Maples are perhaps the best known and most useful trees of the Northern Hemisphere. Whether sought out in the wild or within the landscapes and commerce of many cultures, maples are ubiquitous.

Of the many striped-bark maples planted in the entry court at the Center for Urban Horticulture, *Acer capillipes* is perhaps the best. Located at the juncture of the two entry walks leading through this garden to the central courtyard, this maple is a colorful and handsome sentry. I suppose the comparison with the other maples is a bit skewed in that many of the other species resent the exposure of this site—a hard lesson learned regarding the adaptability of striped-bark maples to exposed sites. Nevertheless, *Acer capillipes* has adapted to the rigors of the Entry Court in stellar fashion.

There are upwards of eight or more species of maple with smooth, striated bark. Most of these are from Asia, with one species, *Acer pensylvanicum*, found in the Eastern United States. They are denizens of mountainous and montane forests where they fill out the understory flora beneath larger oaks, chestnuts, and other tall species. *Acer capillipes* can be found in the temperate forests of Hondo Island in Japan. Its reddish leaf petioles, veins, and buds, and its pink tinted new growth distinguish it from other "snake-bark" maples.

This is a medium-sized tree to forty feet that prefers to have its roots and

PROHORT Seminar Registration

___ WETLANDS RESTORATION DESIGN WORKSHOP \$65

___ J. C. RAULSTON: TIME IN THE LANDSCAPE \$17

___ PESTICIDE APPLICATOR'S UPDATE \$17

TOTAL : \$ ___

Group Rates: five or more persons, less 20%. Group registrations must be accompanied by ONE check or purchase order at least one week in advance. Portion of fees may cover refreshments and speaker expense.

Make checks payable to the University of Washington; receipts available at the door. Mail payment and registration to: Center for Urban Horticulture/ProHort, University of Washington, GF-15, Seattle, WA 98195. For information, call 685-8033.

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Evening Phone

bole in the shade even though its head may be in the sun. The leaves are held out from the branches in a slightly cupped fashion as if straining to absorb energy. Each leaf is serrated with a large central lobe and a smaller, secondary lobe on each side—goose-foot fashion. Looking closely, you also see that there are two very small lobes close to the base of each leaf. The leaves are quilted with parallel sets of veins, the larger ones often tinted red. Distinctive red petioles stand out in a wonderfully understated contrast to the rich green of the rest of the tree. In the fall, the red tints of the leaf petioles appear to creep into the foliage providing autumn color in a range of burnished yellows, tawny oranges and reddish browns.

There is no rest in winter for *Acer capillipes* or the imaginations of architects and designers seeking to use them. The green and white striated bark and red buds are excellent flashy winter landscape attributes. White lines trace and traverse their way up

the smooth, lime green bark, growing ever thinner as they ascend and converge along the branches. Dotted along their pathways are circular or triangular lenticels etched in white. The effect is intricate, subtle, and curious.

Fortunately for nurserymen, *Acer capillipes* is relatively easy to propagate and grow. Stratifying the seed will ensure germination of seedlings. These should be treated with preventative fungicides for protection against damping-off organisms. Cuttings collected in mid summer, wounded, treated with 2% IBA talc, and placed under mist will successfully root and overwinter.

Acer capillipes is best used as a small shade tree or understory tree in shady and semi-shady settings. It is ideally suited for sites with northern exposures. It will also perform well under large trees, such as Douglas Fir, if it is provided with supplemental water during the growing season. If stressed,

it is susceptible to verticillium wilt, various cankers, and scale insects.

Consider gardening companions that will bring out the subtle colors of this handsome maple. During the growing season, look for ways to draw attention to, and accentuate, the pink highlights on the new leaves and the red color of the petioles. Red foliated or flowering companions will due the trick. *Acer griseum* and various selections of red twig dogwood are good winter companions because of their complimentary bark colors. *Acer capillipes* is an effective small tree with four seasons of interest.

Propagation material of *Acer capillipes* is available from Barbara Selemon, Propagator, Center for Urban Horticulture. The Center charges an at cost fee for such requests.

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