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

PROFESSIONAL PRUNING SERIES
Class Sizes Limited; Pre-Registration is Required

DECIDUOUS SHRUBS
Monday, January 28, 1991
8:30 a.m.-11:30 a.m.; $15
Graham Visitors Center, Washington Park Arboretum

Instructor: Dr. Ray Maleike, Extension Horticulturist, WSU-Puyallup.

Practice the techniques and timing for training, preserving and renovating deciduous shrubs in the urban landscape. Following a brief introductory lecture, Dr. Maleike will provide instruction through demonstrations of pruning techniques on Arboretum specimens. Limited class size, please pre-register.

GROUND COVERS, VINES
Tuesday, January 29, 1991
8:30 a.m.-11:30 a.m.; $15
Graham Visitors Center, WPA

Instructor: Ciscoe Morris, Seattle University Grounds Manager.

Learn the proper techniques for pruning and training ground covers and vines from expert Ciscoe Morris. This demonstration of pruning skills and styles will be preceded by a short lecture. Limited class size, please pre-register.

RHODODENDRONS, AZALEAS AND CAMELLIAS
Thursday, January 31, 1991
8:30 a.m.-11:30 a.m.; $15
Graham Visitors Center, WPA

Instructor: George Pinyuh, Washington State University County Extension Agent.

Proper timing and execution of pruning skills are necessary to maintain the beauty and health of these Northwest landscape staples. George Pinyuh demonstrates Rhododendron, Azalea and Camellia pruning techniques on Arboretum specimens. Limited class size, please pre-register.

SMALL YARD RENOVATION
Tuesday, February 5, 1991
8:30 a.m.-11:30 a.m.; $15
University area home site

Instructor: Cass Turnbull, Plant Amnesty.

Renovating a small urban landscape of overgrown and intermixed plants requires careful evaluation and attention if positive results are to be achieved. Cass Turnbull demonstrates the evaluation and execution of renovation pruning. Address of this University District demonstration site will be disclosed with your confirmation of registration. Limited class size, please pre-register.

HAZARD TREE EVALUATION
Tuesday, February 26, 1991
8:30 a.m.-2:30 p.m.; $27, lunch included
Graham Visitors Center, Washington Park Arboretum

Instructor: Nelda Matheny, Hort Science Incorporated, Pleasanton, California.

This seminar is intended for those professionals who must provide tree evaluations in connection with tree loss, tree retention or liability concerns. Through classroom instruction, field demonstration and hands-on practice, participants will learn to make accurate evaluations.

I. Evaluation Principles
Learn the principles of tree evaluation relative to tree health and location. Become familiar with the latest evaluation worksheets.

II. Evaluation Demonstration
Ms. Matheny demonstrates field evaluation techniques and procedures in the Arboretum as participants watch, rehearse and learn.

III. Participant Practice Evaluations
Seminar attendees get their chance to practice tree evaluation skills on five Arboretum specimens. Following this independent field work, evaluations will be reviewed.

Registration information
See page 3
I. Basic Color Theory
How do we perceive and interpret color? What colors and color combinations can be used to create specific moods? Jackie Mitchell of the University of Washington Art Department discusses the uses of color and color combinations in design.

II. Designing With Color
Karen Steeb of KKS, Ltd., shares her approach to establishing year-round site complimentary color in landscapes, particularly through the use of containers.

III. Designing With Color
Robert Chittock of Chittock and Associates discusses his philosophy and approach to designing for continuous color in the urban landscape.

IV. Plants With Colorful Foliage, Fruits And Bark
See what's available in colorful bark, foliage and fruits/berries for landscapes. Pat Roome of Pat Roome Designs reviews useful plants for creating colorful interest.

V. Annuals For Color
Discover the beauty of annuals as accents. Learn what is available as Peggy Campbell of Molbak's Nursery reviews the extensive palette of colorful annuals useful year-round in Northwest landscapes.

PLANT PALETTE LECTURES
Plant Palette Lectures are held the third Saturday of the first two months of each quarter at Washington Park Arboretum. These presentations will combine classroom lecture with field examination of landscape-appropriate materials in the Arboretum collections.

Fee is $5, payable at the door; no pre-registration is required.

Witch Hazels in Winter
January 19, 9:00-11:00 a.m., $5 Graham Visitors Center, WPA
The exotic and fragrant blooms of Hamamelis, the witch hazel family, are often the highlight of a winter landscape. Tim Hohn will discuss the use, culture and available selections of these favorites, as well as lead a field examination of specimens in the Arboretum's Joseph A. Witt Winter Garden.

The Majestic Pines
February 16, 9:00-11:00 a.m., $5 Graham Visitors Center, WPA
Beautiful and majestic, pines are a Northwest landscape staple. Dr. Linda Brubaker leads this lecture and field study of the Arboretum's Pinus collection, including discussions of landscape functions and selections.

WETLANDS IN AN URBANIZING ENVIRONMENT
By Kern Ewing, Ph.D.
Freshwater wetlands have existed in the Puget Sound region for a very long time, but the current trend of explosive development and population increase puts most of them in danger of degradation or destruction. Wetlands may occur in any watershed at locations where water runs or accumulates in low spots in sub-basins. They are connected to other wetlands and other sub-basins by corridors which run along perennial or ephemeral streams. Because of their location and function, just about anything done in a watershed will be "felt" by a wetland, particularly since its supply of water comes from as far up as the ridge lines, and brings with it anything that it can carry.

Although only a few years ago wetlands were considered waste land and not useful unless reclaimed by filling or draining, now the public consensus is that wetland attributes are positive, and even necessary, in the increasingly urban world. Wetlands should be preserved, protected or even created. Wetland functions include the following: fish and wildlife habitat, flood control, groundwater exchange, water quality improvement, primary production (base of food chain), recreation, education, research, and refuge of biological diversity.

These fragile environments can be degraded by erosion, sedimentation, hydrologic alteration, and increased nutrient loading and eutrophication (creating an oxygen and mineral balance that favors plant life over animal life). Further negative impacts from urbanization include increased levels of toxicants (heavy metals, organic substances), bacterial or viral contamination, removal of vegetation buffers around wetlands, physical removal of vegetation within the wetlands, and littering with trash.

What can be done to protect wetlands? Preliminary state guidelines have been drawn up that will control activities which subsequently have impact in wetlands. The guidelines require preventive steps such as erosion control at construction sites, maintenance of vegetated buffers around wetlands, provisions of oil/water separators at bus barns and parking lots, construction of pretreatment facilities such as settling basins for sediment removal and grassy swales to perform biofiltration functions. In addition, stormwater control modifications will not be allowed if they flood bogs, wetland forest or sensitive sedge-dominated communities for any longer period of time than they are known to be capable of tolerating.

Restoration and enhancement of wetlands are encouraged by the proposed state guidelines, and are usually rewarded by relaxation of density limitations in negotiations between reg-
ulators and developers of large residential and commercial projects. Creation of wetlands on upland sites has also been accomplished at a number of locations in the Puget Sound area, generally as mitigation for other wetland losses as the result of the development of a parcel of land.

Currently, research is being carried out at the Center for Urban Horticulture into the resistance of certain plants to some of the impacts which go along with the urbanization of watersheds. Sedges are being investigated because they disappear as a watershed becomes more developed, and so may be good indicator species for wetland stress and allow visual monitoring of wetland health. Lowland tree species such as *Alnus rubra*, *Acer macrophyllum* and *Fraxinus oregona* will be more valuable as restoration species once their tolerances to the disturbances generated by urbanization are better understood.

Kern Ewing, Ph.D., has recently joined the faculty of the Center for Urban Horticulture. As Assistant Professor of Urban Ecology, Dr. Ewing will be responsible for wetlands development, urban ecology issues, and management of the Ecological Research Area.

OTHER EDUCATIONAL RESOURCES


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PROHORT Seminar Registration

___ Hazard Tree Evaluation .............................................. $27.00
___ Pruning Deciduous Shrubs ........................................ $15.00
___ Pruning Ground Covers, Vines ................................... $15.00
___ Pruning Rhodies, Azaleas, Camellias ............................. $15.00
___ Small Yard Renovation ........................................... $15.00
___ Designing With Color ............................................. $20.00

TOTAL: $____

Group rates: 2–5 persons, less 20%; 6 or more, less 25%. 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 expenses.

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.

CUH CERTIFICATE PROGRAM

This begins the second quarter of classes in the new Urban Horticulture Study Certificate Program. The initial response has been overwhelming. Unfortunately, classes filled early and many potential students had to be turned away. We are sorry if you or your staff were unable to attend certain classes, but remind you that all courses will be repeated.

We suggest you enroll in Certificate courses of interest as soon as possible. Class sizes are limited and they fill quickly. You must pre-register and pre-pay for these classes.

Two Certificate classes of direct interest to landscape professionals being offered this quarter are Fundamentals of Plant Recognition and Conifer ID. Other certificate courses this quarter include: Home Garden Tools and Equipment, Home Greenhouse Selection and Setup, Evergreen and Deciduous Shrub Pruning Basics, Small Tree Pruning, Perennial Garden Maintenance, and Container Gardening. Professionals will find that the pruning workshops being offered through the ProHort programs listed on page one of this newsletter are better suited to their level of experience and need than the Certificate class offerings.

PLANT PROFILE

By Tim Hohn

*Carpenteria californica*

It seems we compete with California not only for its people, but its flora as well. Wouldn’t it be nice if we could grow those large Canary Island palms, those glorious proteas, oleanders or bougainvilleas? Those plants may not survive here, but we can at least utilize one of California’s rarest endemic native plants! Found only in a small area of Fresno County, *Carpenteria californica* is a beautiful evergreen flowering shrub with attractive exfoliating bark. This shrub has been a favorite of ours in the Arboretum for many years.

The natural range of the “bush anemone,” as *Carpenteria* is commonly
known, is very restricted. After first being discovered in 1845, it was not found again until 1875. Locally abundant populations occur in the Pine Ridge country of the Sierra Nevada above Fresno. The large white Philadelphus-like blossoms are punctuated with a boss of golden stamens in their centers and are an ornate delicacy sharply in contrast to the dark surroundings of their rocky chaparral habitat.

Carpenteria has several ornamental assets, but is most appreciated for its spectacular flowers. The succession of flowers begins in early June and may last into July. Each blossom has five to seven clear white petals that are rounded and overlapping to form a 2½"-3" wide flower. The disposition of the flowers on the stem can be quite variable. Some are born singly, some in multi-flowered racemes located in axillary or terminal positions.

The evergreen leaves are linear, lanceolate with a revolute margin and are dark green above, pale and glaucous underneath. Each leaf is quite leathery and coated with a thick cuticle that provides fine protection against excessive moisture loss. On particularly hot and dry days, plants in exposed positions may have their leaves reflexed back against the stems—a characteristic that reduces their exposure to direct sunlight.

Bush anemone grows as a spreading, somewhat straggly shrub with several main branches developing from a low crown. Suckers are often abundant. Each branch is clothed in a decorative bark that exfoliates in yellow/tan strips exposing buff-colored new wood. Large shrubs may create their own mulch with a large volume of cast bark, not unlike the genus Melaleuca. Individual plants may grow ten feet tall with a five foot spread.

Each flower produces a small dry capsule full of seeds. Seeds often germinate readily but can produce inferior plants with small, sparse blossoms. Consequently, propagation of superior specimens is most often by cuttings or suckers. Greatest satisfaction for the gardener will be achieved if Carpenteria is grown in a sunny location on well-drained soil and left alone. Regular summer irrigation and fertilization can be detrimental to the health of this plant. It is hardy in Sunset Zone 5 and in most warmer locations in Zone 4. The plants in the Arboretum survived the severe cold of 1988-89 with minor leaf burn and some young twig dieback.

Carpenteria californica is an exceptionally drought-tolerant ornamental shrub worthy of wider cultivation. It makes a fine companion for other summer drought adapted ornamental plants, particularly in warm and dry landscape settings. Greater popularity in the nursery and landscaping trade will also help to insure the survival of a unique and rare species. Carpenteria californica may be seen in the Rock Rose and Rose Garden sections of the Arboretum. Limited numbers of cuttings are available to nurserymen on request. Contact Barbara Selmon, Propagator, Center for Urban Horticulture, GF-15, UW, Seattle, 98195. Individuals may request a plant for a nominal fee from the Pat Calvert Greenhouse, Arboretum Foundation, Washington Park Arboretum, XD-10, UW, Seattle, 98195.

University of Washington, GF-15
College for Forest Resources
Center for Urban Horticulture
Seattle, WA 98195

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