



PROHORT

Vol. 8, No. 3 4

Autumn 1990

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

WSNLA/CUH Present: ALTERNATIVE METHODS AND MATERIALS:

Tuesday, October 16, 1990
8:30 a.m.—Noon; \$20
Center for Urban Horticulture

This seminar qualifies for three hours of WSDA pesticide license recertification credit.

I. Perspectives

Sharon Collman, Cooperative Extension Liaison to EPA, Seattle. Public perceptions, research documentation and regulatory issues are among the concerns applicators face.

II. Possibilities

Phillip Unterschuetz, President, Integrated Fertility Management, Wenatchee. A review of alternative fertility and pest management products for the landscape industry, their mode of action, and economics of use.

III. Practices

Sam Macri, President, Earthguard, Seattle. Report from a manager using alternative methods and materials in a maintenance business.

Registration for this seminar is being handled through WSNLA. Call 1-800-672-7711 for registration forms before October 2, 1990. Forms must be returned before October 9, 1990.

WATER CONSERVATION IN CONTROLLED IRRIGATION SYSTEMS

Tuesday, November 6, 1990
8:30 a.m.—Noon; \$15
Center for Urban Horticulture

This seminar planned in cooperation with the Seattle Water Department.

I. Area Water Statistics

Nota Lucas, Seattle Water Department. Review of water usage and costs in the Seattle area and projections for the '90s.

II. Water Usage By Plants

Dr. Stan Brown, WSU—Puyallup. This data collected on water usage in turf provides a basis for making appropriate choices regarding timing and amounts of controlled irrigation.

III. Managing Your Existing System

Dan Hogan, Dan Hogan & Associates. Instructions for managing, adapting or troubleshooting your existing system effectively.

IV. Irrigation Equipment Update

Marvin Pasquale, Western Equipment. Review of latest generation of controllers and other components which affect irrigation system efficiency; examples of equipment on display.

RESOURCES FOR THE LANDSCAPE PROFESSIONAL

NOTE: This seminar will be offered twice; Tuesday evening and Wednesday morning programs are identical.

Tuesday, December 4, 1990
6:30—9:30 p.m.; \$15
Center for Urban Horticulture

Wednesday, December 5, 1990
8:30—11:30 a.m.; \$15
Center for Urban Horticulture

I. Management Resources: Planning for Success

Vince Galvin, Consultant, Counselor for S.C.O.R.E. To succeed, learn how to develop and follow a working business plan.

II. Human Resources: Seasonal Employees

Paul Schaber, Principal, Northwest Employee Relations, Inc. Interactive discussion of needs, concerns, policies, and procedures in recruiting and training seasonal employees.

III. Informational Resources: Where To Turn For Help

Library Resources. Valerie Easton, Laura Lipton, Horticultural Librarians. Review of where to find and how to use a variety of journals, magazines, books and more.

Other Resources. Vince Galvin. Learn how to locate and select agencies, private businesses, associations and other resources.

Registration information
See page 3

PLANT PALETTE LECTURES—NEW SERIES!

Plant Palette is a new lecture series which takes advantage of the fine collections at the Washington Park Arboretum. These presentations will combine in-depth lectures with hands-on examination of landscape-appropriate materials.

Northwest Maple Magic

October 20, 1990
9:00–11:00 a.m.; \$5
Graham Visitors Center, WPA

Maples make colorful, interesting additions to any landscape. Dan Hinkley reviews their culture and use, and leads this field examination of the Arboretum *Acer* collection. Appropriate selections for landscapes will be discussed.

Outstanding Holly Selections

November 17, 1990
9:00–11:00 a.m.; \$5
Graham Visitors Center, WPA

Join Virginia Morrell for this review of landscape appropriate hollies and their care. The diversity of these attractive plants will be evidenced during your tour of the extensive Arboretum collection.

CUH INITIATES CERTIFICATE PROGRAM

Excellent Training Option

The Center is proud to offer a new Urban Horticulture Study Certificate Program. Through this program we will be able to offer comprehensive courses year-round in a number of subject areas. This curriculum will provide in-depth instruction that should prove useful to many industry professionals. **We encourage managers to consider recommending employees, particularly entry-level or non-degreed staff, to take advantage of these time and cost-effective training courses.** Most classes will be offered weekday evenings or on Saturdays.

Courses to be offered this fall include: **Soils and Soil Fertility; Anatomy and Classification; Plant Physiology, Growth and Development; Plant Propagation; Orchard Management; Shrub and Tree Management for Home Landscapes; Landscape Planning.** For more information regarding these new courses, please call 685-8033.

RESEARCH REVIEW

Effect of Root Pruning on Growth and Transplantability of *Magnolia Grandiflora*

By Van Bobbitt, Washington State University

Horticulturists at the University of Florida investigated the effect of root pruning on growth and transplant survival rate of *Magnolia grandiflora*.

Trees received different treatments based upon when they were root pruned and whether they were root pruned once or twice during the year.

The results were interesting and, in some cases, surprising:

Root pruning did increase the proportion of fine roots in the root ball.

All root pruning treatments reduced tree height, trunk caliper, and leaf number by the end of the growing season.

All trees survived transplanting whether they had been root pruned or not.

Root pruned trees showed greater growth rates during the growing season after transplanting.

Both root pruned and unpruned trees were essentially the same size one year after being transplanted.

This experiment did not show any advantage to root pruning before transplanting. All trees, root pruned or unpruned, survived transplanting and were about the same size one year after transplanting. While root pruning did stimulate greater growth following transplanting, this benefit was negated because root pruning also stunted growth prior to transplanting.

However this is just one experiment on one species. The effects of root pruning may vary depending upon the plant species and environmental conditions.

Gilman, E.F., and Kane, M.E.: Growth and transplantability of *Magnolia grandiflora* following root pruning at several growth stages. *Hort Science*, 25: 74–77, 1990.

PROHORT BOOKSHELF

By Valerie Easton, Horticultural Librarian

New books of interest to professionals now available in the Miller Library. Library hours: 9:00 a.m.–5:00 p.m., Monday through Friday; open until 8:00 p.m. Monday evenings beginning October 1.

Cox, Kenneth N.E. *A Plantsman's Guide to Rhododendrons*. London: Ward Lock, 1989.

Cutler, D.F. and Richardson, I.B.K. *Tree Roots and Buildings*, 2nd edition. Essex, England: Longman Scientific and Technical, 1989.

Horst, Kenneth R. *Westcott's Plant Disease Handbook*. New York: Van Nostrand Reinhold, 1990.

Oakes, A.J. *Ornamental Grasses and Grasslike Plants*. New York: Van Nostrand Reinhold, 1990.

Pacific Northwest Plant Disease Control Handbook. Corvallis, OR: Extension Services of Oregon State University, Washington State University and University of Idaho, 1990.

Parker, John and Bryan, Peter. *Landscape Management and Maintenance: A Guide to Costing and Organization*. Aldershot, England: Grower Publishing, 1989.

PRO HORT Editorial Staff:
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John A. Wott, Associate Director, CUH

Homeoclimatic Plants for The Pacific Northwest, Part II

By Clement Hamilton, Ph.D.

In the previous edition of ProHort, I discussed the importance of using plants from similar climatic conditions in order to develop appropriate urban landscapes.

We have reviewed Mediterranean landscape plant possibilities. In this concluding portion we shall review the other 3 regions.

Australia, Tasmania, and South Africa

Most winter-rain regions of Australia and Tasmania are too warm to yield many plants that are hardy in our climate. Several plant taxa would reward efforts to find, propagate, and introduce maximally cold-hardy provenances, e.g.: *Eucalyptus niphophila*, *Eucryphia lucida*, *Pernettya tasmanica*, *Richea scoparia*, and *Tasmanian lanceolata*. South Africa presents an even greater challenge. *Phygelius capensis* survives in protected sites, but several other plants from higher elevations along the Cape should survive, as well.

Chile

The most useful specimens, in my estimation, are the plants of south-

central Chile, specifically the Lakes Region between the Coast Range and the Andes, whose climate and geography so closely resemble our own. Standard landscape plants of Chile include notorious *Araucaria araucana*, handsome *Berberis darwinii*, the versatile summer-flowering species and hybrids of *Escallonia*, and sun-loving *Pernettya mucronata*. Plant-savvy collectors grow *Embothrium coccineum*, *Eucryphia glutinosa*, and species of *Nothofagus*. *Fabiana imbricata*, a tomato-relative with white tubular flowers, is being featured by the University of British Columbia plant introduction program. Research and wild collecting by myself, students and staff of the Center for Urban Horticulture focus on finding and propagating improved stock of the above species plus others such as *Calceolaria* species, *Drimys winteri* (of particular interest is a low, shrubby variety from higher elevations), *Mutisia spinosa* (which climbs by tendrils that are extensions of the leaf tips), and *Philesia magellanica* (a vine with red, lily-like flowers).

Pacific United States

Although this is not the place to laud the virtues of Pacific Northwest natives, I should mention several Pacific coast plants whose ranges do not reach beyond southern Oregon, but have proven value in Northwest landscapes. *Calocedrus decurrens*, Incense Cedar, is the most outstanding

and exemplifies the drought tolerance that characterizes most winter-rain plants. Other examples are *Aesculus californica*, hardy species of *Arctostaphylos*, *Carpenteria californica* (marginally hardy), *Ceanothus gloriosus*, *C. thyrsiflorus*, and *Cercis occidentalis*. Landscape planners looking for distinctive broad-leaved evergreens should carefully consider *Umbellularia californica* and *Chrysolepis chrysophylla*, which can be worth the extra effort to locate.

It can be seen from the brief foregoing discussion, that numerous plants not normally selected, are better adapted for low-maintenance landscape use in the Northwest than many of the Eurasian and eastern North American plants that often dominate our landscapes. It is certainly true that native geography provides valuable clues regarding plants' cultural requirements, appropriate uses, and combinations in landscapes. So, as you select plant materials for your sites, think of the sizes, the quantities, and the prices—but don't forget the geography!

OTHER EDUCATIONAL RESOURCES

Edmonds Community College Fall Courses: Plant Identification, Soils, Advanced Plant Identification, Landscape Business, Pesticide Management, Landscape Design. Call 771-1679 for details.

South Seattle Community College Fall Courses: Landscape Industry, Fall Plant Identification, Fall Maintenance Planning and Procedures, Maintenance Estimating and Bidding, Tree Pruning and Repair, Weed Identification. Call 764-5336 for information.

Lake Washington VocTech Fall Courses: Horticulture for Professionals, Introduction to Nursery Business Management, Turfgrass for Professionals, Landscape Irrigation, Interior Horticultural Technician. Call 828-5600 for details.

Parking
Prepaid parking is available in the Center for Urban Horticulture lots for those attending Pro Hort seminars. Please use the parking lots.

PROHORT Seminar Registration
WSNLA/CUH Alternative Methods and Materials
Call WSNLA to request registration form before Oct. 2

___Water Conservation in Controlled Irrigation Systems	\$15.00
___Resources for the Landscape Professional, Tuesday	\$15.00
___Resources for the Landscape Professional, Wednesday	\$15.00
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.

Name _____

Address _____

City _____ State _____ ZIP _____

Day Phone _____ Evening Phone _____

PLANT PROFILE

By Tim Hohn, Curator of Plant Collections

Sorbus vilmorinii. The genus *Sorbus* (Mountain Ash), originating primarily in cool, northerly or mountainous regions of the Northern Hemisphere, seems to thrive here in the Pacific Northwest. The entire genus is comprised of highly ornamental trees suitable to the urban scale. Then why are so few kinds offered for sale?

The Mulligan *Sorbus* Collection at the Washington Park Arboretum contains 56 taxa of Mountain Ash for study, observation, and enjoyment. Among the collection are two specimens of the ferny, delicate and diminutive *Sorbus vilmorinii*. This species would be ideal for patios, walkways, courtyards, or small tree lawns, and massed along boulevards, parkways, embankments, or large grounds. Full grown trees may be 20–25 feet high and nearly as broad, but more likely they will be smaller and very refined in stature. Except for the dwarf species, *Sorbus reducta* and *S. poteriifolia*, it is one of the smallest of the Mountain

ashes. Many think of this species as a large shrub, although our Arboretum plants are single-trunked with a rounded head.

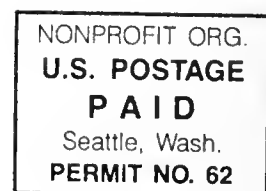
Seeds of *Sorbus vilmorinii* were first collected by Pere Delavay in Yunnan Province, China in 1889 and sent to Maurice de Vilmorin, a notable French nurseryman of the time. China is considered by many to be the center of distribution for the genus *Sorbus* and many of the Chinese species are prized ornamentals. Easily propagated from apomictic seed (produced without fertilization), the Vilmorin Mountain Ash has been distributed to many institutional collections, but is seldom sold in the nursery trade.

One of the most noteworthy characteristics of *Sorbus vilmorinii* is the small, delicate size of the leaves. Each compound leaf is no more than 4–6 inches long with 9–14 pairs of very small leaflets; the entire thing having the appearance of a small fern leaf. The leaves are often clustered toward the ends of the branches and arch out in parasol fashion. The overall effect is light, cheerful, and refined. During

the fall, these elegant leaves turn a handsome bronze color. In May, small, loosely clustered white flowers appear. The dark red fruits are nearly fully formed by the second week of July. By mid-fall the fruits will have faded to rose, then rosy-pink, pink, and perhaps finally to pinkish-white.

The Arboretum specimens of *Sorbus vilmorinii* are growing in partial sun on heavy clay loam and doing well. The ideal site would be part to full sun on a well-drained loam with summer irrigation. Established trees will be remarkably tolerant of drought with partial sun exposure. The Arboretum trees can be seen at the north end of the collection with the other compound-leaved forms next to the *Sorbus hupehensis*, not far from the grove of *S. scopulina*. *Sorbus vilmorinii* is easily grown from fresh, cleaned seed that is cold stratified for 60 days. Limited amounts of seed will be made available free to nurseries requesting prior to November 1, 1990. For seed, contact Barbara Selemo, Center for Urban Horticulture GF-15, University of Washington, Seattle, WA 98195, (206) 685-8033.

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