



# PROHORT

Vol. 9, No. 4

Autumn 1991

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

## PROHORT SEMINARS

Please pre-register.

When attending ProHort Seminars held at the Center For Urban Horticulture, **please park in the university lot** around the facility; you will receive a **free parking sticker** when you check-in for the seminar.

## TRANSPLANTING SUCCESS

Tuesday, October 15, 9 a.m. to Noon

Center for Urban Horticulture

\$17

Using the correct transplanting techniques is critical to the successful establishment and ultimate survival of your plant materials.

Dr. Rita Hummel, Extension Research Associate, WSU-Puyallup and Dr. Ray Maleike, Extension Horticulturist, WSU-Puyallup begin with lectures considering such questions as: Are soil amendments necessary or effective? Does pruning increase the survival rate of new transplants? What should I look for when selecting plant materials? Should I fertilize at planting time?

Following inside lectures, we move outside for a brief demonstration reviewing planting techniques for bare-root, containerized and balled and burlapped materials.

## UNDERSTANDING SOILS: Working From the Ground Up

Tuesday, November 5, 9 a.m. to Noon

Center for Urban Horticulture

\$17

We often overlook the importance of understanding, working with and responding to our soils. Increased knowledge of soils and soil science will improve your ability to make better management decisions.

In this seminar, Dr. Rob Harrison, Assistant Professor, U. of Washington, lectures on soil composition and structure, soil chemistry and fertility- including nutrient deficiency symptoms, and soil amendments. Learn how to work from the ground up.

## RETAIL NURSERY PLANT MANAGEMENT

Thursday, November 14, 9 a.m. to 3 p.m.

Center for Urban Horticulture

\$35, includes lunch

### Pre-Registration is required

**This seminar earns 2 hours WSDA pesticide recertification credit.**

Are you able to maintain all your plant materials in an attractive, healthy, marketable condition? Are customers

able to rely on your staff to provide correct, concise information that will enable them to be successful at home after the sale?

Practical information will be provided for retail nursery professionals in this seminar. Learn about watering, fertilization, using soil mixes, pests and diseases, handling retail plant materials and more in the retail setting. Emphasis will be on information which can be passed on to customers. Speakers include George Pinyuh, WSU Extension Agent, King & Pierce Counties; Dr. Ray Maleike, Extension Horticulturist, Dr. Art Antonelli, Extension Entomologist, and Dr. Ralph Byther, Extension Pathologist, all of WSU-Puyallup.

## FUNCTIONS OF WETLAND SOILS

A seminar focusing on the functions of wetland soils is being planned for early December. The specific date is yet to be finalized; however, this program will be listed in the next edition of this newsletter and separate program flyers will be mailed at a later date.

This program will feature Dr. Rob Harrison and Dr. Terry Cundy, both of U. of Washington, Dr. Kel Wieder of Villanova University, and Sarah Cooke, Pentec Environmental, Inc. Topics include a review of wetland soils composition, structure, and chemistry, a discussion of seasonal water movement and relations in wetland soils, research data regarding responses of heavy metals in wetland soils, and how soils, wetland soils development, and peat soils affect vegetation establishment and growth.

Registration Information  
See page 3

## OTHER EDUCATIONAL RESOURCES

WSNLA and ProHort Present:

### FIELD WORK IN INSECT CONTROL

Wednesday, September 25, 9 a.m. to 3:30 p.m.

Graham Visitors Center, Washington Park Arboretum

\$35, includes lunch

**This seminar qualifies for 4 hours WSDA pesticide recertification credit.**

Pre-registration required; deadline is September 20. To register, contact Vicki Wilson, WSNLA, P. O. Box 670, Sumner, WA 98390, phone (206) 863-4482.

Dr. Arthur Antonelli, WSU Extension Entomologist, reviews the life cycles, hosts, impacts and more of scale, mites, aphids, adelgids, crane flies, and root weevils. Then learn about traditional and alternative management schemes based on the principles of Integrated Pest Management.

Perceptions are varied regarding costs, effectiveness, methods for using alternative products. Hear suggestions from Ken Moppins, Owner, Green Earth Organics for marketing alternative insect management products and practices from a professional.

### ALTERNATIVE PLANTS FOR FALL COLOR

Saturday, October 19, 9 to 11 a.m.

Graham Visitors Center, Washington Park Arboretum

Steve Nord, South Seattle Community College

\$5, payable at the door

### SELECT BROAD-LEAFED EVERGREEN TREES

Saturday, November 16, 9 to 11 a.m.

Meet at Graham Visitors Center, WPA

Tim Hohn, Curator, WPA

\$5, payable at the door

**South Seattle Community College Fall Courses:** Broad-Leafed ID, Greenhouse Operations, Small Business Management, Landscape Design, Herbaceous Plant ID, Maintenance Estimating and Bidding, Weed ID and Management, Landscape Construction and Design. Call 764-5336 for further information.

**Edmonds Community College Fall Courses:** Horticultural Tools and Equipment, Fall Plant ID, Landscape Design, Landscape Materials, Landscape Renovation, Plant Insects, Creative Flower Arranging, Ornamental Grasses, Landscape Business. For registration information, call 771-1679.

## PROHORT BOOKSHELF

By Valerie Easton

New books at the Miller Library of interest to landscape professionals. Please note: the library now has a new lending collection available to the public. Please call 543-8616 for details on lending procedures and current library hours.

Bassett, C.; Whitehouse, L.J.; and Zabkiewicz, J.A. *Alternatives to the Chemical Control of Weeds: Proceedings of an International Conference, Forest Research Institute, Rotorua, New Zealand, July, 1989.* FRI Bulletin #155, Ministry of Forestry, New Zealand, 1990.

Carr, Anna; Smith, Miranda; Gilkeson, Linda; et al. *Rodale's Chemical-Free Yard & Garden.* Emmaus, PA: Rodale Press, 1991.

Elbert, Virginia F.; Elbert, George. *Foliage Plants for Decorating Indoors: Plants, Design, Maintenance for Homes, Offices, and Interior Gardens.* Portland: Timber Press, 1989.

Hannebaum, Leroy G. *Landscape Design: A Practical Approach.* 2nd ed. Englewood Cliffs, NJ: Prentice Hall, 1990.

Harper, Pamela J. *Designing With Perennials.* New York: MacMillan, 1991.

Joint Council for Landscape Industries. *Trees and Shrubs for Landscape Planting.* Hertsfordshire, England: The Landscape Institute, 1989.

Miller, Raymond W.; Donahue, Roy Luther. *Soils: An Introduction to Soils and Plant Growth.* 6th ed. Englewood Cliffs, NJ: Prentice Hall, 1990.

Perennial Plant Symposium; Still, Steven M., *Perennial Plant Association. Proceedings, Perennial Plant Symposium, 1990: Hyatt Ravinia, Atlanta, Georgia.* Hilliard, OH: Perennial Plant Association, 1990.

Sound Resource Management Group, Inc. *Cedar Grove Compost; User's Guide for Landscape Professionals.* Seattle: Seattle Solid Waste Utility, 1991. (pamphlet)

## RESEARCH REVIEW

By Michael Collins

### Uses of IPM in Landscape Maintenance Businesses

While Integrated Pest Management (IPM) offers a more ecologically sensitive approach to controlling plant diseases and pests, procedures for landscape situations are not fully established. Current research emphasizes the need for recognition of key pests and their hosts, predictions of damage, and understanding that intervention is not always necessary.

In a previous ProHort, Clark discussed the concept of using key plants as indicators in an IPM program. He suggested that because of the complexity of landscape situations, the monitoring of hundreds of plant taxa is not possible and that key plants, identified by their high maintenance needs, should be used to indicate when treatment is needed.

The difficulties of establishing landscape IPM programs are due to the complexity of field situations and a lack of detailed knowledge about monitoring techniques. There are few guidelines for determining when action is necessary. In a recent *Journal of Arboriculture* article, Ball and Marsan described the basic concepts of IPM monitoring techniques and suggested guidelines for establishing action thresholds. Careful routine monitoring seeks to recognize what is known as an 'action threshold'—the level at which pests will cause significant aesthetic or

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

economic damage—and thus the level at which treatment becomes necessary.

Also in the *Journal of Arboriculture*, Ascerno suggested several options, including the use of pheromone trapping as a monitoring technique to estimate numbers of insects. A computerized forecasting program can be used to calculate the dates when a certain insect species is expected to be in a particular stage of development. A more accurate assessment can then be made concerning when to best apply chemicals or release biological control organisms so that treatment coincides with a specific life stage. Also helpful are computerized programs that analyse climatic conditions and regional plant development to predict insect development. These have not been developed for all species of insect pests. Perhaps with further research, major pests can be tracked and predictions made concerning the probable threat within a specific geographic area.

A growing number of commercial arborists and maintenance operations have incorporated IPM programs into their pest management services. Not all of these offer true IPM regimes or have established routines. Some practitioners use the term 'IPM' loosely and recommend chemical intervention rather than adopting proper monitoring techniques and procedures. In-

spections will many times result in the decision to spray, and so there is the concern that many companies are using the guise of IPM to continue past practices of pest management.

The field operations of seventeen commercial arborist firms that currently offer "IPM services" were surveyed by Neely and Smith. They concluded that, in general, proven IPM methods for pest/damage monitoring or threshold criteria were not being used. Also, inspectors did not have readily available information about key insect pests and their hosts, and methods for their control. There was little understanding of the relationship between pest density, severity of symptoms, and the potential economic or aesthetic loss. The following were their recommendations about the use of IPM in a landscape service: 1) a loss of spraying service profits can be made up by an increased sale of tree care practices of pruning, fertilization, and contracts for periodic inspections as part of IPM programs; 2) it is essential to hire trained inspectors and have readily available information about pests and their hosts, and appropriate controls; 3) costs to the client should not rise dramatically when switching to IPM management.

Ball and Marsan suggested that a laborious process involving extensive data collection and analyses is required for IPM programs in landscape manage-

ment services. Practitioners should plan long-range strategies for IPM programs and monitor their own experiences over several years time. This data includes notes concerning important insect events, and the abundance of pests and the damage which results. Furthermore, they suggest that the most efficient approach for a service may be to establish action thresholds for only the most damaging pests on their most common hosts.

Ascerno, Mark. "Insect Phenology and Integrated Pest Management", *Journal of Arboriculture* 17(1) Jan 1991, p. 13-15.

Ball, John and Paul Marsan. "Establishing Monitoring Routines and Action Thresholds for a Landscape IPM Service", *Journal of Arboriculture* 17(4) Apr 1991, p 88-93.

Clark, James. "Key Pests in the Landscape", *ProHort* 7(1): Winter 1987.

Neely, Dan and Gregory R. Smith. "IPM Strategies used by Arborists", *Journal of Arboriculture* 17(1): Jan 1991, p 8-12.

The Center for Urban Horticulture is committed to excellence in research, teaching and public service in urban horticulture.

## PLANT PROFILE

By Timothy Hohn

### Double Talk

In plant taxonomy, once a plant has been identified, the correct name must be given to it; this is the function of nomenclature. The use of latin scientific names establishes a relatively stable, unambiguous language of communication with an international scope. These scientific names have biological significance because they can be used to indicate generic and genetic relationships. Plant nomenclature would be unstable and ineffective if botanists, horticulturists, gardeners and others were dependent upon a myriad of vernacular names and their variations among different languages. Our latin nomenclature makes the determination of species names fairly easy for the most part. Cultivars, on the other hand, are much more difficult. Compounding this difficulty, the stability of horticultural no-

### PROHORT Seminar Registration

___ Transplanting Success .....	\$17.00
___ Understanding Soils .....	\$17.00
___ Retail Plant Management .....	\$35.00
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 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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menclature regarding cultivars is in serious jeopardy with the rise in popularity of trademark names.

The proper use of cultivar names for selected clones is described in *The International Code of Nomenclature for Cultivated Plants* (Brickell, 1980). An example would be *Ilex x meserveae* 'Blue Stallion' where the fancy name Blue Stallion is the cultivar name as indicated by the use of single quotes. Gotcha! The correct name for this plant, based on cultivar registration, is *Ilex x meserveae* 'Mesan'. Unfortunately, erroneous use of trademark names like Blue Stallion, Blue Maid, China Girl, and others of the blue holly series in reference works have caused the trademark names to be used interchangeably with the cultivar names. Marketing strategies have contributed to this confusion by the strategic application of "catchy" names as trademarks and deliberately difficult names for the cultivar indication.

Trademarks are appropriate and effective if used to indicate the origin of a product. For instance, Star is the general trademark name given to the product line of roses produced by the

Conard-Pyle Company. If Conard-Pyle hybridized a new rose and registered it as Rosa 'Sunshine', it would be another offering in the product line of Star roses. Monrovia Nursery's use of a distinctive black and yellow label on all their products is another good use of a trademark. But, trademarking of individual plants leads to confused nomenclature and untraceable lineage. This is compounded by the fact that trademark law, as would be acceptable for a product line, does not forbid the application of the same trademark name to a different cultivar. Given this scenario, a research or evaluation project that unwittingly refers to germplasm only by the trademark name has actually failed to make permanent reference to the germplasm. The results of such work might be questionable or even useless. Replication of such work would be difficult or impossible.

Another ghastly twist in this nomenclatural nightmare is the trademarking of previously well-established cultivar names. The popular trees *Acer rubrum* 'October Glory' and *Tilia cordata* 'Greenspire' are now claimed to be the trademark names by the originators

with the cultivar designations being 'PNI0268' and 'PNI6025', respectively, for these trees. Does this nursery even know which plants are the historic clones 'October Glory' and 'Greenspire'? How are other distributors and customers to be sure what they are really getting? Their lineage may now be doomed forever! By the way, those of you selling October Glory red maple must now change the name to PNI0268 red maple, or *Acer rubrum* 'PNI0268', or pay the trademark holder for the use of the name.

One concern is how do we control this mess to retain nomenclatural stability in communicating with each other about plants? How do we provide property right protection for germplasm without compromising nomenclatural stability? Perhaps extending the enforcement period for patents on plants is the answer. Whatever compromise or system we adopt, it is up to each of us to be accountable for preserving continuity, fixity and stability in nomenclature.

Reference: Darke, Frederick. "A Curator's Viewpoint", *HortScience*: 26(4), April 1991, p. 362-364.

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

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