# INTERIOR HORT... for interiorscape professionals

*Center for Urban Horticulture*
*University of Washington*
Vol. 1, No. 2

*Cooperative Extension*
*Washington State University*
Autumn 1987


## INTERIORSCAPE SEMINAR:

## Diagnosis and Treatment of Interior Plant Problems

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| Date | : | Tuesday, October 20 |
| Time | : | 7 to 9 p.m. |
| Location | : | Center for Urban Horticulture |
| Instructor | : | Dirk W. Muntean |

Discover the step-by-step process professionals use to diagnose interior plant maladies. Learn to properly treat prevalent insect, disease, and physiological disorders.

Mr. Muntean is staff horticultural consultant for Soil and Plant Laboratory, Inc. of Bellevue. He has a M.A. in physiological plant ecology from the University of California.

*This seminar qualifies for two hours of W.S.D.A. pesticide license recertification credit.*

### Registration Form: Interiorscape Seminar

Registration Fee .................................................. $10.00

**Group Rates:**
Rates for firms/institutions sending two or more employees per seminar:
2–5 employees ....... $8/person 6 or more employees ....... $7.25/person

To qualify for group rates: (1) firm's registration must be received at least one week in advance; (2) all registrants must be from the same firm; and (3) total registration fee must be paid with *one* check or money order.

Firms using purchase orders must make prior registration arrangements.

Make checks payable to the University of Washington; no bank cards.

Portion of fees may be used for refreshments and hosting speakers.

Receipts will *not* be returned by mail; they will be available at the door.

NAME ____________________

ADDRESS ____________________

CITY ____________________ STATE ______ ZIP ________

PHONE (DAY) ____________________ PHONE (EVE) ____________________

Mail payment and registration to: Urban Horticulture Program, University of Washington, GF–15, Seattle, WA 98195

For more information please call 545–8033.

## Miller Library—A Resource for Interiorscapers

The Elisabeth C. Miller Library at the Center for Urban Horticulture has much to offer the interior landscape professional, such as trade journals (*Interiorscape, Greenhouse Manager, Greenhouse Grower*), research journals (*HortScience* and *Journal of Environmental Horticulture* often carry interior plant research reports), a set of Washington State University extension bulletins, and pest control references. Books of specific interest to interiorscapers include: *Interior Plantscaping,* Richard Gaines; *Commercial Indoor Plants* and *The Art of High-Tech Watering,* David L. Hamilton; *The Encyclopedia Botanica—The Definitive Guide to Indoor Blossoming and Foliage Plants,* Dennis A. Brown; *Exotica Third,* A.B. Graf; and *Interior Plantscapes—Installation, Maintenance, and Management,* George H. Manaker.

This noncirculating library is open to the public Monday through Friday, 9 a.m. to 5 p.m. Call 543–8616 for more information.


*INTERIOR HORT* Editorial Staff:
Dr. John A. Wott
George J. Pinyuh
Van M. Bobbitt, editor

## *Indoor Outdoor Plants*

George Pinyuh
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Research on the potential of temperate zone plants for interior environments has produced some interesting and useful results over the past ten years. Many tested plants were found suitable for short term use indoors. They adapted to the lack of winter dormancy, put on new growth, and responded as if nothing was amiss when kept inside for up to nine months. Data reported in 1978 indicated that *Camellia japonica* and *Magnolia grandiflora* could survive and sustain quality in an interior landscape for ten years.

Because temperate zone plants are adapted to winter cold, many of these species may tolerate the cold, drafty conditions frequently encountered in the winter near the entrances to shopping malls. Tropical plants in such situations often seem to be in a state of decline and look unattractive.

Like most tropical species grown indoors, temperate plants usually benefit from acclimation to low light intensity. Recent experiments at the Alabama Agricultural Experiment Station showed that a number of temperate zone species performed well indoors when produced under substantial shade, but performance generally decreased when the same plants were produced under high light levels.

Temperate plants grown outdoors under 64% shade performed well when placed indoors at 70°F. under 50 foot candles of fluorescent light for twelve hours each day. Researchers rated these plants on growth habit (density), leaf spacing, leaf drop, foliage color, and overall appearance over a 15 week period. After this data collection period, the plants were maintained under the same light and temperature conditions and fertilized every six weeks with Peters 20-20-20 for an additional five months. These plants resumed growth without exposure to low temperatures and short days, indicating that a period of dormancy is not necessary for all temperate zone plants.

The following plants show potential value in the interior landscape. Other temperate zone plants may also acclimate to interior conditions, and further testing is certainly needed.

*Ajuga reptans*
*Buxus microphylla*
*Camellia japonica*
*Cleyera japonica*
*Euonymus japonica* 'Aureo-marginata'
*Fatsia japonica*
*Ficus pumila*
*Gardenia jasminoides* 'Radicans'
*Illicium anisatum*
*Ligustrum japonicum* 'Variegatum'
*Liriope muscari*
*Magnolia grandiflora*
*Mahonia bealei*
*Mahonia fortunei*
*Nandina domestica*
*Ophiopogon japonicus*
*Pittosporum tobira* 'Variegata'
*Pittosporum tobira* 'Wheeler's Dwarf'
*Podocarpus macrophyllus* var. *maki*
*Vinca minor*

## *Container Shape Affects Soil Moisture*

Van Bobbitt
Center for Urban Horticulture
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The soil water content in planters decreases with an increase in soil height. Therefore, the shape of a container greatly influences the soil moisture level. Soil in a wide, shallow pot will retain more water after irrigation than that in a narrow, upright pot with an equal volume of soil.

The effect of container shape on soil water content can easily be demonstrated by an exercise described by Dr. Art Spomer of the University of Illinois:

> A single, new cellulose sponge, a container of water, and any flat, level support (e.g. a screen or sieve to allow free drainage) are required. The sponge has a small finite size, is relatively shallow, and is open to the atmosphere at its top and bottom (drainage) surfaces and is therefore analogous to a container soil. Lay the sponge "flat" (Fig. 1-A) and pour water onto it until it is saturated and water drains freely through it. After drainage ceases (3–4 minutes), stand it up on its "side" (Fig. 1-B) and observe that more drainage occurs. After drainage ceases the second time (4–5 minutes), stand the sponge up "on end" (Fig. 1-C) and observe that still more drainage occurs. The sponge's volume remains constant but its *average water content decreases* (indicated by renewed drainage) as the *average height increases.* In other words, *a shallower container soil will be wetter than a deeper container soil.*

Though shallow plant containers are often considered more aesthetically pleasing than deeper containers, they may adversely affect the plants growing in them because:

1) shallow pots will have a greater volume of saturated soil immediately after irrigation;

2) soils in shallow pots also tend to dry out faster because more soil surface is exposed to the atmosphere;

3) effective irrigation scheduling is trickier in shallow pots than in deeper pots.

Reference: Spomer, L. Art. 1974. Two classroom exercises demonstrating the pattern of container soil water distribution. *HortScience* 9: 152–153.

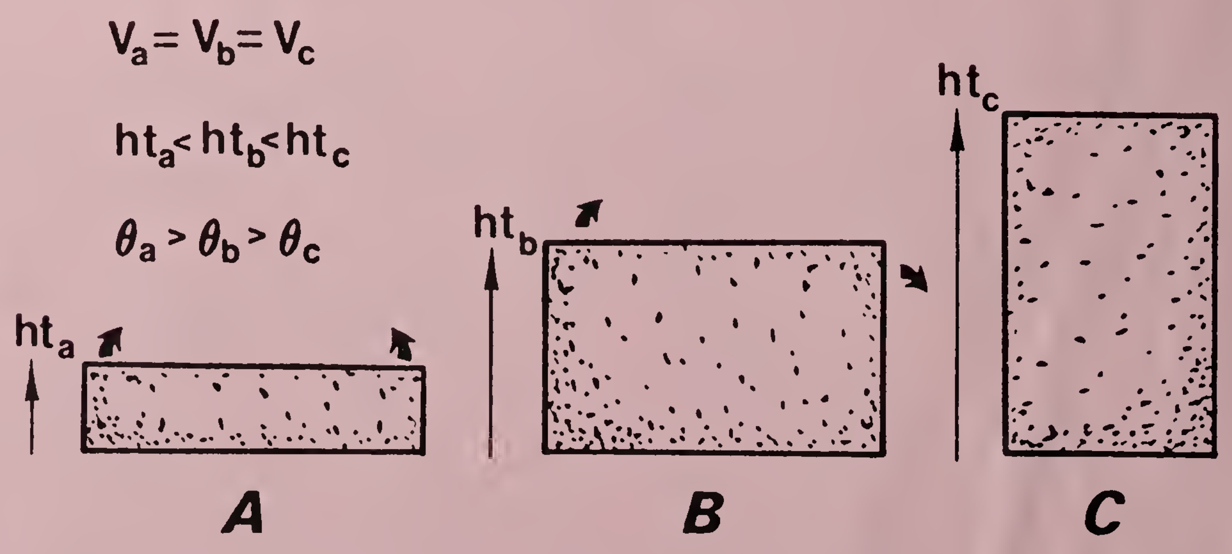


*Fig. 1.* Exercise using sponge analog to demonstrate the relationship between a free-draining container soil average water content ( θ) and average height (ht). A. Sponge flat, maximum θ, minimum ht. B. Sponge turned on its side; lesser θ, (renewed drainage), greater ht. C. Sponge on end; minimum θ (second renewed drainage), maximum ht. Since the volume (V) remains constant, the average θ decreases as average ht. increases.