



PRO HORT

THE CENTER FOR URBAN HORTICULTURE
University of Washington

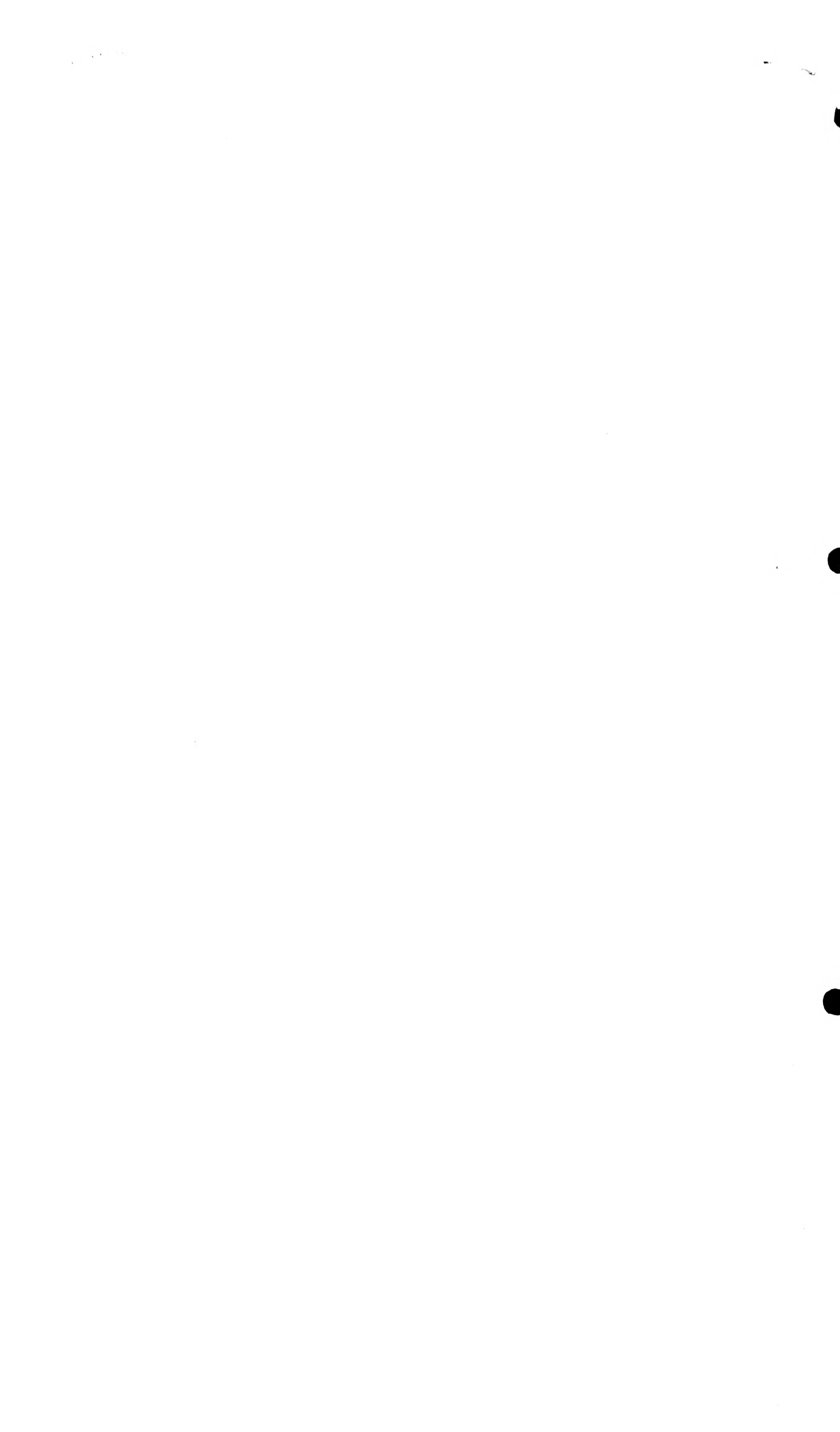
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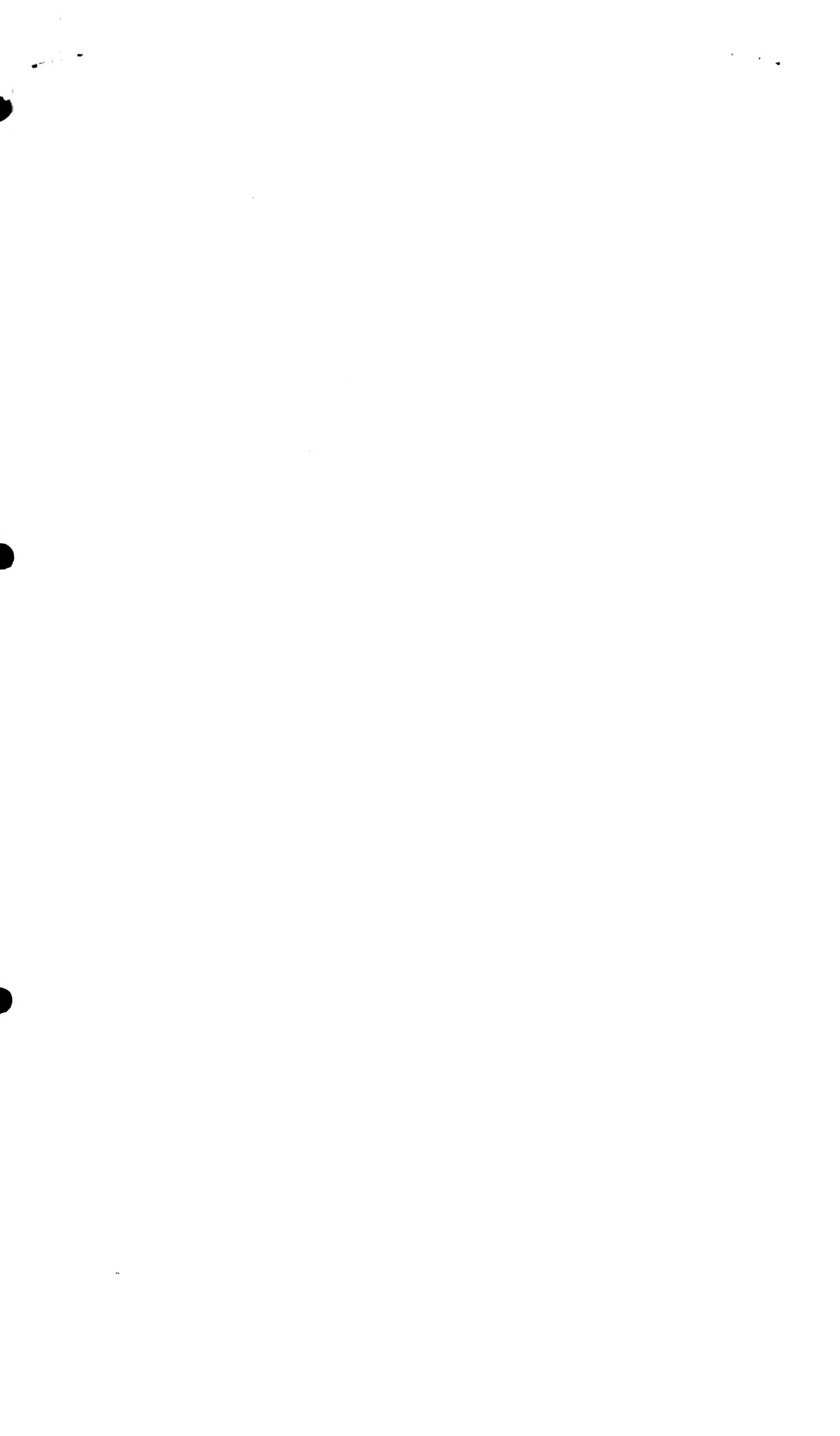
January 1985

THE DOZEN TOUGHEST BROADLEAVED TREES FOR CITY CONDITIONS. Selection by Marvin Black, Seattle City Arborist.

The following is condensed from a presentation by Mr. Black at a joint meeting of the American Society for Horticultural Science and the Canadian Society for Horticultural Science, Vancouver, B.C., August 1984.

1. Ailanthus altissima -- Tree of Heaven. "Grows better under city conditions in this country than any other tree, native or exotic." (Wyman). Tolerates a wide variety of soil conditions; not particular about pH. No serious disease or insect pests. Can withstand root submergence in salt water.
2. Platanus x acerifolia -- London Plane. Survives really bad city conditions well, except overly poor drainage. Some susceptibility to auto-exhaust pollution, mildew in some areas, and anthracnose fungus where springs are cold and wet. Husky root system is no problem in fertile soil, but can badly damage pavement on shallow soils.
3. Populus / Salix complex. Poplars and Willows. Tolerant of extremely poor soils and often of dry soils. These trees also grow readily in moist or soggy soils. Some willows will tolerate standing water part of the year.
4. Acer. Maples. Toughest probably Norway (A. platanoides), Bigleaf (A. macrophyllum), and Red (A. rubrum). Red Maple tolerates poorly drained soils.
5. Tilia. Lindens. Littleleaf Linden (T. cordata), Crimean Linden (T. x euchlora), and Silver Linden (T. tomentosa) probably the best. Avoid Silver Linden in dusty or sooty areas, as hairy leaves collect dust. Very tough, durable trees. Subject to summer attacks of leaf-feeding insects, which are not fatal but annoying.
6. Aesculus. Horsechestnuts. Subject to disease in some sections, but less so in Northwest. Heavy limbs said to break in storms, though little of this observed in our area. Durable in poor city soils.
7. Ginkgo biloba. Maidenhair Tree. Here is a long-lived tree that needs no spraying, very little pruning, has handsome leaves that color well in the fall, and has a notable pollution tolerance; yet the tree is not much planted.
8. Robinia pseudoacacia (Black Locust) and Gleditsia triacanthos (Honeylocust). Both are quick-growing, with fine, feathery foliage. Both tolerate poor soils including alkaline soils (winter road salts) and some coastal salt spray. They can be weedy and may seed and sucker freely. Both have several insect and disease pests which may need controlling. Honeylocust in particular has experienced dieback and quite a few other in-city problems over the past decade; it is probably overused. In the Pacific Northwest, both locusts are intolerant of poor drainage.
9. Quercus. Oaks. Particularly good species include Pin Oak (Q. palustris) and Willow Oak (Q. phellos), which tolerate poorly drained sites, and two non-swamp species, Red Oak (Q. rubra) and Texas Red Oak (Q. shumardii). Willow Oak grows particularly quickly, to two feet annually.
10. Carpinus betulus. European Hornbeam. Common form is the cultivar 'Fastigiata', which grows egg-shaped to 30 feet. A neat and formal tree tolerant of heavy clay soils; dislikes gravelly soil. Needs little pruning, but can be sheared to hedge. Very few pests. Intolerant of really poor drainage.
11. Ulmus parvifolia. Lacebark or Chinese Elm. The true Chinese elm -- the name is in disrepute because nurserymen have often erroneously offered the inferior Siberian Elm (U. pumila) as the Chinese Elm. U. parvifolia is somewhat resistant to Dutch elm disease and also to elm beetle. Tolerates dry, poor soil and a wide range of pH. Though rarely seen, a tough city tree.
12. Magnolia. M. heptapetala (formerly M. denudata) and M. x soulangeana are especially good. Both are showy in flower. Tolerate most city conditions, including pollution, well. Fairly good drainage is required. They perform best in good soil. These two magnolias are better city flowering trees than the cherries, crabapples, and plums more often used.





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WINTER PLANT SURVIVAL: CARBOHYDRATE

RESERVES A FACTOR. Excerpts from "Winter of '83 in Retrospect," by James R. Feucht, Metro Horticulture, Cooperative Extension Service, Colorado State University, November 1984.

Until recently, the role that carbohydrate reserves (starches, fats and sugars) play in winter survival did not receive much attention.

Research in the last ten years or so has shown that a major factor in winter survival of woody plants is their ability to store reserve "food energy" (carbohydrates).

Paul J. Kramer and Theodore T. Kozlowski, Plant Physiologists, discuss at great length the value of carbohydrates in plant survival in their book, Physiology of Woody Plants (Academic Press, 1979). They indicate that carbohydrate distribution in plants varies from species to species and even changes as a plant gets older. Young trees may have more reserves in their roots, but as a tree matures, more is found in the trunk and branches. There are also seasonal variations of carbohydrate reserves.

Plants under stress from lack of water, nutritional deficiencies, over-watering and other problems will fail to build up carbohydrate reserves.

INTEGRATED PEST MANAGEMENT NEWSLETTER

Sharon Collman, King County Extension Agent, publishes a pest management newsletter entitled OF BUGS & BLIGHTS. It is available free of charge to professional horticulturists. To receive OF BUGS & BLIGHTS send the name of your company, address, and zip code to Sharon Collman, King County Cooperative Extension, 312 Smith Tower, Seattle, WA 98104.

COLORFUL WINTER LANDSCAPES

Most gardeners consider winter the least colorful season of the year. Take a closer look though, and you will find many landscape plants to brighten up the dismal gray of winter. Cornus mas, Jasminum nudiflorum, and Rhododendron mucronulatum all bloom in mid-winter; Hamamelis mollis and Sarcococca spp. even have fragrant flowers. The bark and twigs of Acer palmatum 'Sango Kaku', and Betula spp. add interest to the winter landscape.

Pyracantha spp. and Cotoneaster spp. provide ornamental fruits. Blue- and golden- foliage conifers can also brighten up the landscape. These are just a few examples of the more common winter-colorful plants.

To further explore this subject, you can attend guided tours at the Washington Park Arboretum or attend the February 20 seminar -- "Winter Color in the Landscape" (see URBAN HORTICULTURE PRESENTS). A free bulletin, "Winter Flowering Shrubs", #KC-103, is available from King County Extension (344-2686).

EDUCATIONAL OPPORTUNITIES

LANDSCAPE MAINTENANCE SEMINARS

Special notices for these programs are no longer being sent. Instead, the Landscape Maintenance Seminars will be listed in URBAN HORTICULTURE PRESENTS..., the Center for Urban Horticulture's new continuing education newsletter. Those who are on the PRO HORT mailing list will also receive URBAN HORTICULTURE PRESENTS.

EDMONDS COMMUNITY COLLEGE will offer the following horticulture courses winter quarter: Plant I.D., Soils, Pruning, Greenhouse Studies, Landscape Studies, Plant Propagation, Landscape Design, House Plants, Grafting, Wholesale Nursery Practices, Urban Tree Management, Landscape Business, Small Engine Repair, Japanese Gardens, Rock Gardens, Wood Construction Projects. Call 771-1545.

SOUTH SEATTLE COMMUNITY COLLEGE will offer the following horticulture courses winter quarter: Nursery Operations, Winter Plant I.D., Landscape Design, Pruning, Pesticide Application & Management (preparation for state licenses), Irrigation System Design, Landscape Construction, Arboretum Planting. Call 764-5336.

PESTICIDE TRAINING SHORTCOURSES

W.S.U. Cooperative Extension will again offer shortcourses for those planning to take the State's pesticide licensing examinations. In western Washington the locations and dates are:

Mount Vernon.....January 28,29 & 30
Tacoma.....January 29,30 & 31
Sequim.....February 12,13 & 14
Vancouver.....February 26,27 & 28
Bellevue.....Feb. 27,28 and Mar. 1

Call your county extension office for registration information.