

TREES AND SHRUBS RECOMMENDED FOR HARDINESS IN THE NORTHEAST

A speech presented during the March meeting of the New York State Nurserymen's Association by William H. Collins, staff horticulturist, American Garden Cole, Inc. Persons interested in membership in the Association may contact Daniel Perkins, 144 Southern Parkway, Rochester, NY 14618.

Hardiness zones are probably the best single indicator for judging the general adaptability of trees and shrubs to a specific area. We would all feel more confident if there were similar but additional data that individually covered other weather factors such as the seasonal changes in rainfall, humidity, wind, elevation, days of sunlight and the like.

Most of us are further stymied by trying to fit into our U.S. hardiness zones, the many exotic (introduced)

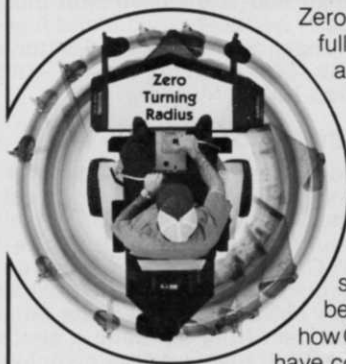
trees or shrubs for which there are, so far as I know, no easily accessible maps that permit us to say for example that the range of the Norway Maple of Europe corresponds to zone numbers so and so of the United States. It's true the Norway Maple has been planted extensively in North America and that through trial and error we can set up a pretty valid comparison. But what of the many Asian introductions whose origins and climatic conditions we know even less about. Where they were first collected may not be a total indication of their full range of adaptability in this country. Some of the Asiatic maples and birches are in this category and perhaps some of the elms and lindens.

Having lived along the south shore of Lake Erie and Lake Michigan and the north shore of Lake Ontario, I can understand that the evidence of what is, and what is not

hardy depends additionally on a number of localized weather and site factors. Some of these factors are, number of miles inland from the shore, direction of prevailing winds, amount and duration of snowfall, elevation, and the nearness and size of adjacent wooded or open space areas. By and large these areas bordering large bodies of water are favored areas plant-wise. The extensive variety of plant material in the Morton Arboretum near Chicago, the Holden Arboretum near Cleveland, the Hamilton, Ontario Botanic Gardens and the notable woody plant collections in the Rochester area, both bordering Lake Ontario, indicate their more stable climates.

Region 5 of the New York State Nurserymen's Association (Genesee Finger Lakes Nursery Association) corresponds to a similar sized area in Ohio extending about halfway down the state from Cleveland.

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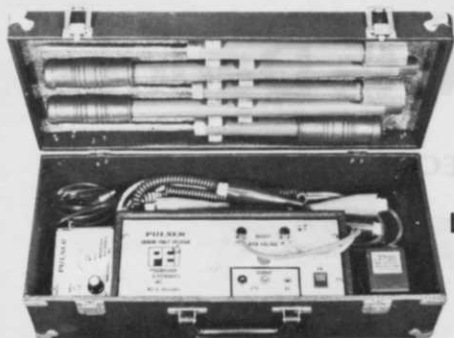
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Hardiness

There is one major difference. The New York area is one hardiness zone colder. Fortunately they're still able to plant most of the species we consider choice ornamentals.

We recognize that the growing conditions existing at some sites may contain specific physical or stress restrictions that limit the successful use of an otherwise adaptable variety. Conversely we have the opportunity to extend the landscaping palette by using some plant material tagged one or two zones less hardy if we provide the conditions needed for acceptable growth. A few examples of site modification are the use of protection afforded by northern and eastern exposures; improving drainage by tiling, mounding or amending the surface soil layer; planting or building windbreaks; establishment of overhead plantings to create filtered or high shade; and the use of ground covers. We frequently place Magnolias, Azaleas and Rhododendrons, Oriental maples, and great many of the broad-leaved evergreens in this category. The landscape architect, landscape contractor, retail nurseryman and garden center manager cooperatively share tremendous pride with the client when "ify" plant material is successfully established. Prestige in the plant business results from continuously doing most things a little better than your competitors.

With the exceptions noted, the following in small to medium sized trees are considered dependable in Region 5: Maples, Amur and Japanese; Hawthorns, many but especially Washington, Cockspur, Dotted, Toba and English. The thornless form of the Dotted Hawthorn, 'Ohio Pioneer' and the Cockspur Hawthorn 'inermis' are especially suitable where the situation calls for

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Hardiness

a thornfree form. Neither are yet used to the extent we believe they will when better known.

Flowering crabapples are a top-ranking group all across northern areas. To our benefit most of the newer flowering crabapple varieties are improvements over previously introduced selections. These better varieties have greater resistance to disease and most bear smaller sized fruit, two of the very best reasons to consider switching to some of them. Nurserymen in Region 5 are uniquely well situated to use the flowering crabapple performance data published annually by Professors Nichols (Plant Pathology) and Brewer (Horticulture) of The Pennsylvania State University. Their 1978 report "Flowering Crabapples in Central Pennsylvania" was released earlier this year. It's easy to see the landscaping advantages of small fruit, so why not select the best from among them, those that give you greater mileage in beauty because the fruit persists attractively on the trees for months longer. Malus 'Red Jewel' was rated in this report — "Excellent, showy red fruit by 11/21". Fruit size was as small or smaller (1/4-3/8 inch) than any of the 10 kinds whose fruit did persist as late as November 21, 1978. No apple scab reported on Red Jewel for 1978 at the Rock Springs Research Center.

European Mountain Ash is especially colorful in northern areas, including all the Great Lakes region. Fruit appears to color brighter and the foliage is freer of the shabby look the leaves take on in areas having warmer and drier growing seasons.

Japanese Tree Lilac with cherry-like bark on older trunks is at least a three season beauty — creamy-white, cone-shaped flower clusters, heavy textured leaves all season and the cherry bark winter color. Where grown and planted on sites requiring 5 feet or more of clearance, they are customarily "spec-ed" single-stem, tree form, but specimens with 2 to 5 trunks limbed up to a corresponding height are just as useful and much more attractive. One other advantage. If one trunk is lost by injury, the top in several years will still "round-out".

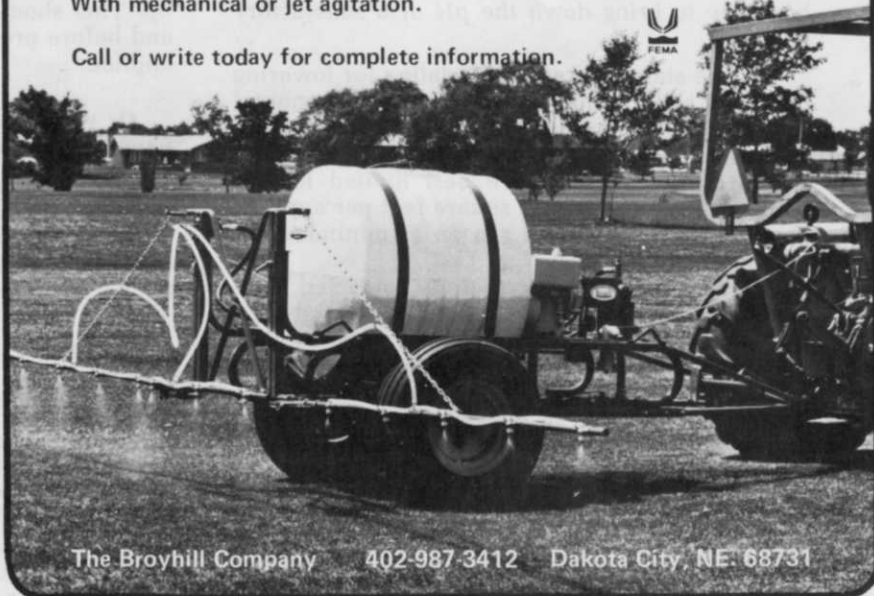
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In larger trees, we can never seemingly over plant the sugar and red maple. Both mature into large specimen trees. When we crowd either the roots or tops, but especially the root area, the trees may show stress symptoms — leaf scorching at first, then slowed annual growth, then twig die-back starting on the extremities of the top and outer branches. When either of these trees are to be planted in some kind of man-made root area, pit or above ground, argue persuasively for the largest soil volume possible with square footage of surface area predominately important. The upright, columnar to narrow pyramidal forms are best where space between trees or other features is minimal.

Among exotic (introduced) trees that we feel quite comfortable with are European Beech, Norway Maple and Little Leaf Linden. Natives we continue to plant are Pin and Red Oak, White and Green Ash, Honeylocust, and the several birches. A number of nurseries and governmental institutions are working to determine which of the so-called white barked, borer-resistant birch species from Asia are best. Seedling populations of several kinds are just now becoming available in the trade and more will be soon.

Back to the smaller trees, Japanese maple properly sited gets more beautiful and more valuable each year it ages. The species and its selections in large sizes seem to be continually in short supply. Redbud is a perennial favorite. It is unfortunate more growers are not propagating the white and pink forms, but especially the pink. An eight to ten foot specimen of Wither's Pink Charm is breath taking.

With promising new Magnolias coming from the efforts of The National Arboretum and dedicated Magnolia breeders both here and abroad, it could easily be worth your while to try some of them even if available only in small sizes. Do what many nurserymen do. They plant them in their own landscape plantings until large enough to move B&B to a permanent site where they can be further observed and photographed.

We presume that Golden Rain-tree, Yellow-wood and Japanese Pagoda still head the list of summer flowering trees if there is evidence in your area that flowering age trees are doing just that. **WTT**

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