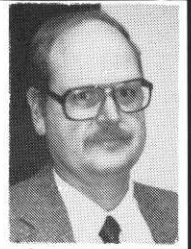


THE EXTENSION LINE

Plant and Site Considerations for Choosing Trees, Shrubs

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PART I Plant Considerations*

Winter in Minnesota often can be a time to plan for tree and shrub additions to the golf course landscape. Drought effects of 1987-88 and into 1989 resulted in many weakened and often dead landscape trees. Secondary invaders, such as Pine Bark beetles and Two-lined Chestnut Borers, caused further damage and death to many already weakened trees. While loss of these trees is usually not a pleasant situation, it can provide the opportunity to replant (or reforest) certain areas of the golf course.

When choosing new tree and shrub plantings, both plant and site characteristics must be considered to achieve best plant-to-site combinations. Here are a few of the more important plant characteristics to consider when choosing landscape plant material.

Trees and shrubs are major elements in residential, commercial, park and golf course landscapes. They can have a

long-term impact on the overall beauty and effectiveness of a neighborhood, community or golf course landscape. Many factors must be considered when selecting a tree or shrub. Will the plant tolerate the local hardiness zone and the conditions of the site where it will be planted? How big will the plant get, and what shape will it take? How long will it take to reach maturity? Does the plant have the characteristics to provide the benefits intended, and can it be integrated into a specific landscape plan? Plants are a lifetime investment of usefulness and beauty; plan for and understand the requirements of plants to obtain their total contribution to the landscape.

Size

Select plants that will complement their surroundings when fully grown. For example, smaller trees should be used if overhead wires cannot be avoided. Small trees also will keep a small area from becoming overcrowded and a single-story building or clubhouse from

being dwarfed.

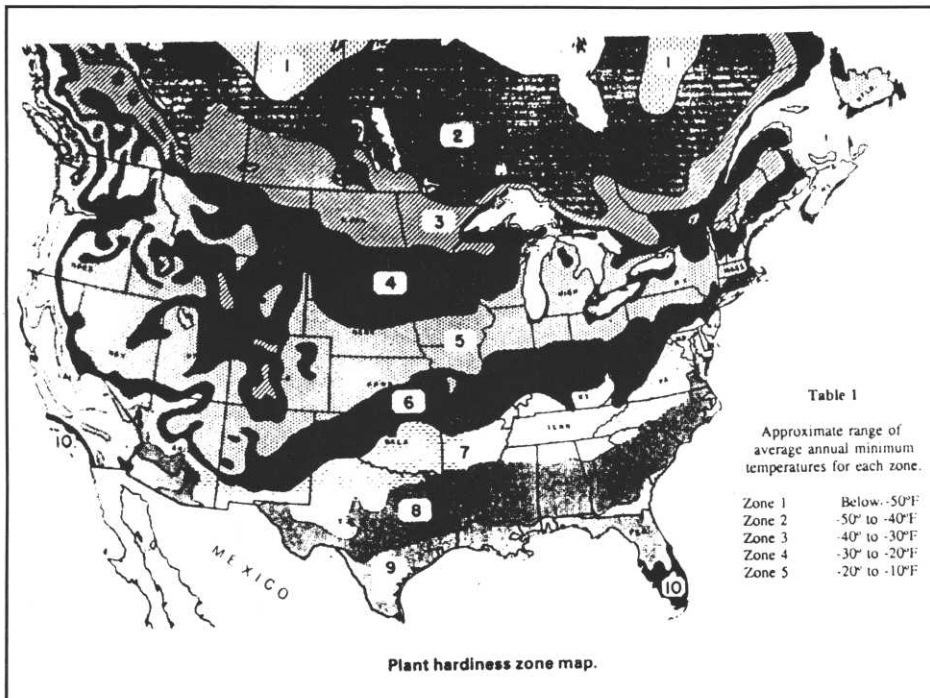
Conversely, a large area and a two-or-more story house can be complemented by taller, larger trees. One must learn the approximate mature size of plants to insure their proper use. Variation in size and shape will exist within species or within varieties due to site and growing conditions. Information on tree sizes and other important plant characteristics can be obtained from local nurseries and County Extension offices.

Growth

Trees often are planted to grow fast and provide shade in a few years. Trees that grow very fast may be short-lived, have weak branch habits and shallow or suckering roots that can disrupt turf or pavement. It is important to note that the growth rate of trees and shrubs can vary considerably, depending on a variety of environmental factors. The correct amount of light, water, nutrients, etc., can encourage slow-growing plants to grow faster. Proper care can make the difference between slow, medium and fast growth.

Cold Hardiness

Minnesota winters dictate selecting plant species that grow well in Minnesota and are hardy in Hardiness Zones 3 or 4 (Table 1). Plants native in northern areas are better adapted to withstand Minnesota winters. The hardiness zones, however, are not inflexible. For instance, a Zone-4 plant on an exposed, windward site in southern Minnesota may winterkill, whereas the same tree, if planted in a protected windless Zone 2 location, may survive. Soil, plant vigor and cultural practices also play a role in a plant's ability to withstand cold conditions.



*Adapted from Minnesota Extension Service publication (AG-FO-3825) "Planting and Transplanting Trees and Shrubs" by Bert T. Swanson, James B. Calkins, Peter-Jon Rudquist, and Steven Shimek.