A tree's requirements to thrive, its form or shape, its size at maturity, and its function in your landscape help determine the best tree to plant

keys to proper tree selection

THE # right tree FOR
THE # right place

the tree's purpose

■ **shade** Trees provide a greater cooling effect than man-made structures because not only are the rays of the sun blocked, but water is added to the air through transpiration. Plant for where you want the shadow during the hottest time of the year and the time of day you desire the shade. High, wide-crowned trees with deciduous leaves are the best providers of shade.

■ **aesthetics** For visual accent, select a tree that contrasts with the landscape in one or more of the design elements — form, size, color or texture. The more contrasts, the stronger the accent.

environmental factors

■ **minimum temperature** Low temperatures can freeze and kill the living cells in trees. Select a tree species suitable to the hardiness zone where you live.

■ **moisture** Special attention must be given to your selection if the site periodically is flooded, subjected to very dry conditions or is continually exposed to the drying effect of wind.

■ **soil** Soil factors are probably the most overlooked element when selecting a tree. Soil depth, structure and pH, in addition to soil moisture, can make the difference between success or failure after planting. Each tree species has a tolerance range related to acidity and alkalinity just as it does for shade. Compaction of any soil due to heavy pedestrian or vehicle use often reduces a tree's growth and size potential.

size and location

Available space is probably the consideration most often overlooked or misunderstood when deciding what tree to plant. Before planting, know what the tree will look like as it nears maturity. Consider its height, crown spread and root space. Think about walkways and drainage pipes below the planting. Take into account electrical wires, other trees, and structures above. Also think about the change to your scenic views and how the planting will affect your neighbors.

■ **windbreaks and screens** Low-branching conifers are most effective for screening and privacy. Noise is best reduced by tall, densely planted trees with fleshy, broad leaves. Dust and noise can be reduced with a combined planting with conifers. Windbreaks can be made most effective through a dense, step-like arrangement of both conifers and deciduous trees. For protection on south and east sides of a house, deciduous species work best because they allow incoming solar radiation in winter.

■ **boundaries** Trees can help to visually delineate your property. Small, narrow-crowned species will do the job while not invading your neighbor's space.

■ **air pollution** The ability of a species to tolerate air pollution is becoming more important. The best course of action is to ask a local professional if there are problems in your town and what species are affected.

■ **light** Each tree species has a requirement for light. Match the tree's need for light to the planting site.

■ **pests** Every locality has its problems with particular insects or diseases. The best way to avoid trouble is to avoid the species that host these pests. Ask a professional for recommendations.

here's a tip: Local nurseries generally carry trees that are compatible with the local climate. However, for site factors other than climate, it is pretty much a matter of "buyer beware." Get the answers before you buy and look around your neighborhood to see what may be growing well.