Whether we see them at home, at work, or on a drive through town, trees improve our quality of life. But place them properly, with consideration to the trees' mature size, lifespan and best growing environment.

by H. S. STEVENS

Shade trees make our homes and neighborhoods more attractive, reduce heating and air conditioning costs, and increase property values.

While shopping centers and office buildings are landscaped with shade trees, both employees and customers feel more welcome and at ease.

City planners recognize their value in "softening" the feel of business areas, making downtowns more attractive to tourists and to new businesses.

And it is a proven fact that hospital patients whose windows look out on a green scene recover faster than patients who can view only the next brick wall.

Yet, all these benefits are lost if we fail to plant the right tree in the right place. Drive down almost any street in almost any city and you will see trees that are dying prematurely from disease or insect problems; trees that have outgrown their surroundings and trees that are weak and unsightly because they are in the wrong climate or wrong type soil. Most of these problems could have been prevented by putting the right trees in the right places.

When recommending, selecting or planting trees, there are 10 factors to consider.

1) The purpose for which the tree is intended. Deciduous trees, planted on the south side of a home or other building will block sunlight in the summer and allow it to enter during the winter months, keeping the building more comfortable year around and reducing both heating and air conditioning costs.

Evergreen trees planted on the north side of a building act as a wind break and can further reduce heating costs during the winter. A row of evergreens, placed behind a row of dense shrubs, makes the most effecting noise barrier along streets or thoroughfares.

2) The mature size and form of the tree. For one story buildings, select a tree whose mature height will be no more than about 35 feet. You don't want the tree to dwarf the building. Taller trees are better for two story homes.

The form of the tree is also important. A broad, low-hanging tree may be perfect for a park or yard, but out of place too near a building or along a driveway. On the other hand, a slim, upright tree would be suitable for lining the driveway, but provide little shade for a sunny deck or patio. Foliage density is another consideration. Do you want dense shade or dappled shade? Will grass or other plants be grown under the canopy of the tree?

Choose the type tree accordingly. For example, it will be easier for turf to grow in the lighter shade of a Lacebark elm than in the dense shade of a...
Northern red oak or Southern magnolia.

3) Lifespan. In most cases, fast growing trees are also short lived trees. Although fast growers will provide significant shade in a comparatively short period of time, they will also mature, decline and die more quickly. A homeowner doesn't want to have a tree removed just when he or she is planning to retire and enjoy sitting under it.

4) Hardiness. In the north, hardiness is a matter of how low winter temperatures can become before tree damage occurs. In the south, both winter cold and summer heat are important considerations. Trees native to northern states are not affected by southern winters, but can easily succumb to the heat of southern summers. And trees on the northern edge of their adapted range may do well during average winters, but be severely damaged by unusually low temperatures or extended periods of below freezing temperatures. Be sure the trees you recommend or plant are reliably hardy in your area, and will survive severe as well as average winters.

5) Environment. Environment includes soil type, condition and pH; available moisture; and the level of air pollution. Some trees do best in sandy soil; others prefer alkaline soil. Some require acid soil; others need neutral to slightly alkaline soils. Because iron and zinc can be tied up in alkaline soils, trees native to acid soils will become chlorotic and unsightly when planted where the soil pH is high.

In cities, soil compaction can be a major problem. Rainfall tends to run off rather than soak into the root zone of the tree. And trees near streets or planted in wells in shopping mall parking lots suffer not only from lack of moisture, but from poor aeration, as well. When planting in confined areas, choose varieties that tolerate that environment, and set out small rather than large trees. Younger, smaller trees adapt more easily to unfavorable conditions and have a much better chance of survival.

Urban air pollution can add to the problem. Some species of trees, like ginkgos, for example, can withstand the smoke, fumes and stress of urban conditions; other cannot. For long-term success, it is imperative that we match the requirements of the tree with the environment in which it will be planted.

6) Characteristics. Some trees have characteristics that make them undesirable in certain places or situations. Roots of certain willows, elms, and maples are sewer cloggers and should always be planted away from sewer or water lines. In the south, large leaved trees can put on excess foliage during rainy spring weather, then compensate by shedding leaves all over the lawn as soon as the weather becomes hot and dry. Some shallow-rooted trees can crack sidewalks. The fruit of certain female trees, such as ginkgo or Russian olive, can be extremely messy on sidewalks or driveways. Consider all of these characteristics when deciding where trees should be placed. Even the acorns of some of our most beautiful oaks can be a nuisance under certain circumstances.

7) Susceptibility to insect and disease damage. Insect and disease problems are intensified when there are concentrations of one family of tree in any given area. The losses from oak wilt during the past few years is an example.

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