



## Center for Landscape and Urban Horticulture

# Selection of Landscape Plants

Plants in the urban landscape modify the environment, softening its harshness and making it more livable. Landscaping also adds significantly to the dollar value of commercial and residential property. However, in order to fully realize the potential amenities and benefits that landscaping can provide, one must select, install, and maintain plants with the utmost care.

Gardeners can minimize maintenance and future problems in the landscape by selecting the right plant for the right spot. Consider functional uses, growth habit, environmental tolerances, and site adaptation when selecting plants.

### Functional Uses

Plants have many functions in the landscape that depend on the species and its inherent growth characteristics, including shape, size, color, texture, seasonality, and flowering and fruiting habits. Among these uses are environmental modification and energy conservation (by intercepting sunlight, screening reflecting and radiating surfaces, and enhancing summer temperature control and winter solar energy collection); wind protection and modification; noise reduction; air purification and dust collection; and water and erosion control. Plants can also be used to direct traffic, define space, develop a sense of privacy, screen unsightliness, provide security, serve as wildlife refuges, and enhance aesthetic and ornamental qualities.

### Growth Habit and Size

The ultimate size and rate of growth are important considerations when selecting plants. Plants that become too large are a common problem in the landscape, and, as the typical residential lot continues to shrink, oversize plants will be increasingly troublesome. Oversize plants can block views, conflict with overhead utility lines, crowd out other plants, ruin designs, and damage hardscape as well as be hazardous, difficult to care for, and expensive to remove. Although homeowners often desire an instantly mature landscape, they should be aware that fast-growing plants, especially trees, are generally short-lived and often have invasive roots and inherently weak or brittle wood that is prone to breakage in wind. Patience is a gardener's best virtue, and the homeowner will be duly rewarded by selecting for permanence in the landscape and using species noted for their slow or moderate rate of growth and long life.

Plant growth characteristics such as seasonality of leaves, flowering and fruiting habit, presence of thorns, and branch and canopy structure are important considerations for placement in the landscape and future maintenance. A tree with excessive leaf, flower, and fruit litter could be annoying and hazardous in high-use areas like sidewalks, patios, and decks. The same tree placed away from high-use areas and with a ground cover beneath it to absorb litter is no problem at all, however. Remember that, because of branching habit and growth characteristics, some species require more frequent and intense levels of training and pruning to achieve the desired form.

### Environmental and Pest Tolerances

The environmental adaptation of a species to a particular site is another important consideration. Simply because a local nursery stocks the plant does not signify that the plant is adapted to the climate and soils of the area. Consider wind, exposure (light), soil type, moisture, humidity, pests, fire, and extremes of temperature that your site offers in comparison to the needs and tolerances of the plant species being considered.



Susceptibility to common pests should also be considered when selecting plant species. Choose a pest-resistant or pest-tolerant cultivar or selection whenever possible; unfortunately, the availability of these cultivars or selections is limited. Lists of certain plants with known resistance or susceptibility to *Armillaria* root rot and *Verticillium* wilt, two serious soilborne fungal diseases, are found in [table 13.1](#) and [table 13.2](#).

#### General Tips

Some advance planning is necessary to integrate functional uses, growth characteristics, and environmental tolerances, and to attain an aesthetically pleasing but useful and purposeful landscape. Successful landscaping requires a knowledge of plant materials, careful assessment of the landscape site, and development of appropriate design solutions.

To become familiar with plant materials, especially how they will perform and look when mature, visit your local parks, botanical gardens and arboreta, street plantings, private gardens, and nurseries. Inquire and consult with people who live or work in or near these places. Although nurseries are good sources of information, remember that their stock is usually not full grown and the ultimate size and shape of the plants may not be represented accurately.

Consult the numerous references available in most libraries about selecting and caring for landscape plants. A good general guide for all of California is the *Sunset Western Garden Book*, and regional and local references are available for most parts of the state. Also, many UCCE county offices have prepared lists of trees recommended for local conditions.

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