

Street tree suitability

Chinese pistache was No. 1 rated tree in the south San Francisco area by arborists, landscape architects and landscape gardeners alike.

■ Arborists, landscape architects and landscape gardeners generally agree about the applicability of using certain street trees, according to a 1992 study.

Eight species were rated by 28 arborists, 20 landscape architects and 25 landscape gardeners in Sunnyvale and Redwood City, Calif. They were in general agreement that *Pistacia chinensis* (Chinese pistache) and *Magnolia grandiflora* (Southern magnolia) were excellent street tree choices.

The group ranked Southern magnolia high in visual aesthetics, shade and disease resistance and Chinese pistache high in visual aesthetics, drought tolerance and overall suitability. Interestingly, the latter

far outscored the seven other species in the rating category "overall suitability."

The trees were rated on a five-point scale with 5 being very good and 0 being very poor. In "overall suitability," Chinese pistache rated 4.1. Its closest competitor was Chinese hackberry (*Celtis sinensis*) with a 3.8 rating.

Robert Sommer, Christina L. Cecchetti and Hartmut Guenther of the Department of Environmental Design at the University of California-Davis authored the study and wrote results for the "Journal of Arboriculture." Here are other observations:

Overall Suitability: The Chinese pistache was rated significantly higher than five of the other species and the Chinese hackberry was rated significantly higher than four other species.

Visual Aesthetics: Top-rated trees were the Chinese pistache and American sweetgum, each of which was rated significantly higher than the two lowest-rated species, and the Modesto ash to four other species.

Shade: The American sycamore was rated significantly superior to five other

species, and the Modesto ash to four other species.

Drought Tolerance: The Chinese pistache was rated significantly better than two other species while the Australian willow was rated significantly better than three other species.

Droppings, Debris: The Australian willow was rated superior to five other species and the fern pine to three other species.

Disease, Insect Resistance: The American sycamore and Modesto ash were tied for last place. Each was rated significantly worse than the remaining six species.

Pruning Requirements: The Modesto ash had significantly more pruning requirements than three other species.

Root Problems: The American sweetgum and Southern magnolia fared poorly. The sweetgum had significantly more root problems than six other species and the magnolia more than five other species.

Growth Rate of Mature Trees: No significant differences among the species.

Interestingly enough, all three groups that participated in the survey had a high degree of agreement on most of their observations. Highest degree of agreement was in regard to shade and debris.

STREET TREE SURVEY RESULTS

SPECIES	VISUAL AESTHET.	SHADE	DROUGHT TOLER.	DEBRIS	DISEASE RESIST.	PRUNING REQUIR.	ROOT PROB.	GROWTH RATE	OVRRLL SUIT.
Southern magnolia (<i>Magnolia grandiflora</i>)	4.2	4.1	2.8	2.3	4.0	3.6	2.1	3.4	2.9
Chinese pistache (<i>Pistacia chinensis</i>)	4.4	3.8	4.1	3.4	3.7	3.2	3.8	3.5	4.1
American sweetgum (<i>Liquidambar styraciflua</i>)	4.3	3.5	2.7	2.2	3.6	3.4	1.7	3.6	2.6
Australian willow (<i>Geijera parviflora</i>)	3.5	3.1	4.0	4.1	3.8	3.4	3.7	3.4	3.2
Fern pine (<i>Podocarpus gracilior</i>)	3.6	3.2	3.2	3.5	3.7	3.3	3.6	3.3	2.9
American sycamore (<i>Platanus occidentalis</i>)	4.1	4.5	3.5	2.4	2.6	3.1	3.2	3.8	3.2
Chinese hackberry (<i>Celtis sinensis</i>)	4.0	3.8	3.8	3.4	3.6	3.3	3.5	3.6	3.8
Modesto ash (<i>Fraxinus velutina</i>)	3.9	3.7	3.7	2.9	2.6	2.7	2.6	3.4	2.8

Sommer, Cecchetti, Guenther, 1992