

Saratoga Horticultural Research Foundation, Inc.

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Some Notes On The Chinese Pistache
(Pistachia chinensis) And Its Propagation

The Chinese Pistache is a handsome, ornamental, deciduous tree which tolerates the summer heat and drought of a mediterranean climate very satisfactorily. It is not only an effective shade tree for these conditions but is also reasonably frost hardy. Its ability to provide a high degree of shade and its startlingly bright autumnal hues make it a highly desirable shade and street tree in arid and semiarid areas. It is a dioecious species and thus lends itself to selection for male flowering forms which do not bear fruit, have superior autumnal colouring and have a desirable habit.

When well established it readily tolerates mediterranean type climates in which a period of winter rainfall is followed by a dry, hot summer. In common with similar subjects it is however best established in the landscape with summer watering for its first few seasons. It has succeeded well in California especially in the hotter inland areas where it will maintain a good green colour throughout the summer. Its suitability for these climates is well demonstrated by the majestic trees which create an avenue on the Durham Highway, for a mile or so, south of Chico. These particular trees date from the second decade of this century - the plants being grown from seeds which had been collected in Turkestan and then sent back to the old USDA Plant Introduction Garden at Chico by Frank N. Meyer, who was, at that time, traveling extensively for the USDA in China and Russia on what was to be his last and ill fated expedition.

The cold continental winter climate of its natural habitat determine that this is a cold tolerant plant and indeed it will survive winter temperatures of well below zero F (-18 C) if properly hardened in the autumn; and as might be anticipated it will not be adapted to climates which experience late spring frost after bud break. Although young growth may be damaged by an occasional late spring frost, only severe temperatures are likely to kill still dormant buds, however exposure to regular spring frost will cause the development of a stunted and atypical tree. As might be expected young seedling plants are usually much more susceptible to cold temperature damage because of their later growth into the autumn which will be associated with a lack of hardiness and a delay in the development of dormancy. From the limited evidence available, it does not appear that any of the provenances of this species in cultivation in North America show any significant differences in hardiness. Selection for increased hardiness would require a return to native stands in the colder areas of its natural distribution in order to obtain a more cold tolerant stock.

The autumn colour of individuals within the species varies considerably although it is always strikingly colourful. In young seedling trees the shades tend to be lighter in the yellow/orange/scarlet range while in mature trees the leaves develop deeper purplish and burgundy tones which give way to bright oranges just prior to leaf fall. While the fruits produced on the female trees are in themselves decorative, they do constitute a potential hazard in pedestrian areas when they fall. The fleshy fruits, which

contain the small pistachio-type nuts, are borne in more or less upright clusters of eventually a purplish or bluish tinge; these are attractive in the autumn sunlight. Leaf abscission is relatively early in the season and occurs quickly and uniformly - a considerable benefit in 'solar' situations where the early season access of winter sunlight to solar panels is important, and it also permits a quick and efficient, once over street or yard cleaning.

The dioecious habit of the species allows the selection of male flowered (i.e. fruitless) specimens of superior characteristics. In general the male forms have a more spreading habit and a denser canopy than female trees which make them more desirable as shade trees.

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