

Arid Zone Times

An Arid Zone Trees Publication

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Tree Irrigation Practices

While many books on arid region landscape design and maintenance contain discussions of irrigation practices for summer months, little is written about winter irrigation practices. Horticultural writers rightly acknowledge that there is a widely held misconception that desert trees require "little or no water. In too many instances this assumption leads to the failure of newly transplanted trees.

Far less is written about the detrimental effects of excessive winter irrigation of selected desert tree species. Unlike more traditional deciduous trees that drop leaves in response to shorter fall and winter days, many popular desert tree species drop leaves in response to cold temperatures. As a result, in warm" winters or in certain microclimates some trees may remain quite foliated in winter months. While leaves may be present, little if any growth occurs and transpirative demand is extremely low.

In a natural setting most popular desert landscape trees survive through the winter on rainfall alone. Winter irrigation schedules must be sensitive to the same environmental factors that influence summer irrigations: soil type, the stage of maturity of the tree, frequency and amount of rainfall, the tree's immediate physical environment (sun or shade, near structures or isolated), the irrigation demands of understory planting and the current weather conditions (unseasonably warm, higher than average rainfall etc.).

Every landscape has a different set of variables so there are no hard and fast rules for setting irrigation schedules. Having said that, review the following recommendations with your particular landscape and conditions in mind:

Trees planted in late summer and fall should be deeply watered every three to four weeks.

Well-established trees may require little if any supplemental irrigation (probe soil periodically to assess the status of soil moisture).

Some trees (mesquites, sweet acacias) will tolerate moderate over irrigation far better than others (Ironwoods, Sonoran, Blue and Foothill Palo Verdes).

Be aware of other sources of water in the landscape that may influence the water demands of trees (e.g. overseeded lawns, seasonal color plantings, understory planting, flood irrigations).

In winter it is safer to error on the side of slightly under irrigation trees since the detrimental effects of over-irrigation usually will not be apparent until the following spring when the damage to roots has already occurred.