

Arid Zone Times

An Arid Zone Trees Publication

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PREVENTING DAMAGE TO BOXED TREES

For convenience many builders and landscape contractors will "warehouse" landscape trees and shrubs at the construction site for days or even weeks before they are to be installed. In many respects, the average landscape construction site can look deceptively like a nursery, making onsite storage an all too common practice. But landscape plants, unlike lumber or plastic pipe, require special care and attention when stored if damage or serious injuries are to be avoided.

The greatest risk to tree health is poor irrigation practices, particularly in the summer heat. In the nursery trees are watered slowly using fan spray emitters that distribute water evenly over the soil surface. Box trees are often watered twice a day when day temperatures exceed 80° F and night temperatures are 60 to 65°. Watering trees quickly with a hose does not saturate the root ball the way fan sprays do. It is often difficult and expensive to have adequate labor available to properly water trees once a day much less twice. Trees will be damaged or die if left without irrigation for more than one day during hot weather. As the rootball dries it contracts and can separate slightly from the side of the box. Water applied at high pressure to the surface will leak down these separation and out the bottom of the box giving the irrigator the false impression that the tree is well watered. Re-hydrating the rootball takes long, slow irrigation.

Winds damage trees in two ways. Hot, dry summer winds rapidly dry leaves and increase the need for timely irrigation. Winds can also push boxed trees over breaking branches and trunks. Falling trees can also damage adjacent stored trees.

Equipment is another source of injury. Trees are particularly at risk during unloading, placement and installation. For the safety of workers and the health of the tree, handling and planting boxed trees, especially large boxes, should be done only by experienced equipment operators. When using ground operated equipment or cranes, make sure that boxes are well secured and that chains, cables or straps are not attached to trunks or branches. DO NOT remove the bottom of the box.. The bottom helps keep the rootball protected and in one piece during transplanting. DO NOT remove the sides of the box until it is in the planting hole and backfilled two thirds up the sides. Rootballs should be moist, but not soaking wet, while planting.

Once installed, equipment operators (those of the landscape contractor as well as those of other sub-contractors), should be careful when operating equipment around trees since both impact and excess soil compression can damage trunks, branches and rootballs. Many machines, like backhoes and front loaders, release intense heat and pollutants directly onto the canopy of trees from exhaust pipes that are mounted **above** the engine.

If you must store trees onsite, consider the following: arrange trees in groupings or rows that will help them resist being blown over and damaged by winds; allow sufficient space between trees so their branches do not become tangled while in storage and subsequently broken when trees are selected for planting; set up a temporary drip system with a manual, battery or electric valve; monitor the trees regularly to insure that the irrigation system is operating properly and trees are receiving slow, frequent irrigation; schedule deliveries so that trees are stored the shortest time possible and avoid storing trees over the weekend (2 day and the occasional 3 day weekend).

If you have any questions about installing trees, the University of Arizona in cooperation with the Arizona Landscape Contractors Association (ALCA) has produced an excellent video tape on planting landscape trees. This tape, "**Planting and Staking Landscape Trees,**" is available through the Agriculture Communications Department of the University of Arizona.