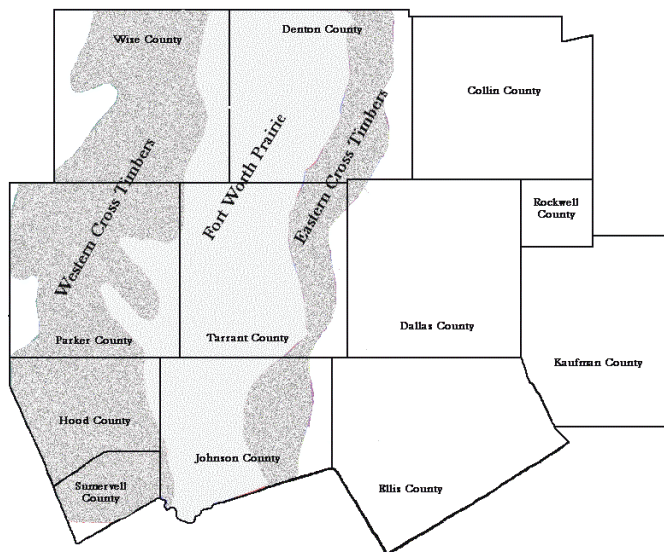


POST OAK DECLINE

Many post oaks die in patches without apparent cause. Dr. Dave Appel, Associate Professor of Plant Pathology and Microbiology at Texas A&M University, has conducted some interesting studies on post oak decline. He discovered that much had to do with the depth to hardpan. Hardpan is an underground impermeable layer that is associated with water table depth. Since Cross Timbers post oaks grow under arid conditions in well-drained soils, trees over shallower hardpans have water that is more available during prolonged droughts. Trees less than a few hundred feet away that have a deeper hardpan may not be able to survive.



Map of the Cross Timbers Ecosystem

Post oak death due to over watering will have similar symptoms of trees with other types of root damage. Tips of branches will die back causing an abundance of epicl sprouting (sprouting of small twigs along trunk and/or major limbs). Trees with root damage often take several years to die. As the tree consumes its starch reserve, it will produce fewer and smaller leaves while branches will continue to die back. As the tree uses up the last of its energy reserve, death can appear to happen suddenly after a flush of growth in the spring or acorn production in the fall.

You are fortunate indeed if you have a post oak in your yard. Because of their slow growth rate and their difficulty surviving transplanting, you will never find one at a nursery. Your tree successfully took hold in the arid grassland or Cross Timbers and grew slowly and steadily. It was one of the lucky few that survived construction and it provides an abundance of shade for you and food for urban wildlife. If you are lucky enough to have a post oak under your care, just like a cactus, it will be healthier if you simply ignore it. Don't over prune it or feed it, and avoid putting flowerbeds or driveways under the canopy where you will disturb its roots. Just enjoy its beauty and its shade. When your neighbor's exotic imported trees are wilting in the hot Texas sun, you'll be as happy as your post oak with your reduced water and electric bill.

Dr. Appel also found just the opposite was true in urban areas. Post oak is one of the least tolerant species to flooding. Post oaks over shallower hardpans will be more susceptible to over watering than those over deeper hardpans. A new water loving homeowner, a new irrigation system, or a recent change in drainage patterns can be enough to tip the scale.