

Restoring Post Oak Woodlands In The Southern Cross Timbers – Scheduling And Frequency / Aphorisms And Precepts

One of the many reasons for restoring Post Oak Woodlands in the Southern Cross Timbers is to reclaim the soils from invasive species shrubs and trees with aggressive root systems that create chronically dry soils resulting in soil desertification.

This is an initial requirement for allowing the native ecosystem to rejuvenate itself.

Soil desertification and chronically dry soils result in reduced organic material in the soils, erosion and water run off instead of local water absorption.

Removing the invasive and pioneer shrubs and trees with high surface root density characteristics will allow the soils in nature areas of the Southern Cross Timbers to once again absorb rain and irrigation water more thoroughly helping to recreate local watersheds.

The results will be more native organic material holding ability in the soils, more fertile soils, less hypoxylon canker fungus and an increase in native tree canopy and native tree germination.

Invasive and pioneer species shrubs and trees are also known to have allelopathic compounds that result in the native Post Oak Tree root system to rescend in local areas of the tree root system adjacent to the offending plant.

In many cases the native Post Oak Tree in the areas being restored are under stress because of the invasive species plants within their root system.

The Post Oak Tree expresses the stress by early, premature die off of tree limbs adjacent to the offending plant roots, small tree limb sprouts on the tree trunk and lower parts of existing/established limbs and by white patches of hypoxylon canker on the trees trunk usually on the side of the tree of the offending plant.

The Great Southwest / Southern Cross Timbers Region is a hot dry region. It is a significant achievement for an oak tree to survive in this region without additional irrigation water.

The trees that survive well in this region, in harmony with other native plants, without assistance from man are the Post and Black Jack Oak Tree.

Because there is limited water in this region, if there are invasive species of shrubs and trees with more aggressive root systems absorbing limited water available, the native Post Oak and Black Jack Oak Tree with their small diameter, slow growing, and diffuse roots don't receive enough water through rain to thrive.

The root tips of the Post Oak Tree roots have recreated a particular and delicate environment in the soil to function.

The Post Oak Tree leaf litter and root system creates an environment in the soil/ organic material matrix that allows for less soil compaction pressure for easier delivery of water and nutrients through the small diameter roots to feed the tree, while providing an insulative barrier from the heat and radiation of the sun in the Southern Cross Timbers Region.

A disturbance in the lightly packed root area reduces the functionality of the post oak tree roots.

In restoring Post Oak Woodlands in the Southern Cross Timbers where the Post Oak trees are stressed from surrounding invasive species it is necessary to remove all invasive, pioneer species, shrubs and trees with high surface root density characteristics to achieve long term survival of the native Post Oak and Black Jack Oak Trees.

When planning a Post Oak Woodland Restoration Project it is always necessary to keep in mind the tree root sensitivity of the Post Oak and Black Jack Oak Tree.

Driving trucks across, or having any significant weight on, native oak tree roots should be kept at a minimum.

The size of each defined area for Post Oak Woodland Restoration is approached in increments and based on the time frame and manpower available to complete the defined area.

It is best for the native Post Oak Tree root system and long term survival of the Post Oak Woodland and forest floor to remove all non-native, invasive / pioneer

species and trees with high surface root density characteristics.

Once the invasive / pioneer species trees and shrubs have been removed from the Post Oak Woodland floor it is encouraged that native prairie grass seed be spread to germinate.

Although native prairie grass prefers growing taller than turf grass, periodic mowing in what was once heavy or dense privet areas will require periodic mowing until the invasive species plants no longer regrow in the defined restoration / reclamation area.

Annual reseeding may need to occur until there is no invasive species regrowth and native prairie grasses have been firmly established in the restored area.

Where there are large savanna like open spaces that have been reclaimed / restored it is encouraged that post oak trees be planted.

The native Post Oak tree with its leaf litter will help to reverse soil desertification from the previous invasive species wildscape.

If during a Post Oak Woodland Restoration Day Event some but, not all invasives and trees with high surface root density characteristics are removed, this incomplete work leaves vulnerable the Post Oak and Black Jack Oak to fast growing, invasive species tree roots to grow within the root system of the native Post Oak Tree now with the shade removed and in full sunlight with greater heat and a recent not gradual more intense drying effect on the soils and roots.

It is a stressful change for a Post Oak Tree root system going from shade to full sunlight, from removing privet for example, even made more stressful with high surface root density tree roots growing adjacent to the Post Oak Tree root system.