Mowing In The Post Oak Woodlands of the Southern Cross Timbers

Periodic mowing in urban post oak woodlands and savannas is required to ensure that a safety buffer zone is maintained at the perimeter of the nature area.

There are a variety of vegetation management techniques that can be used to maintain the MUZ (mowing underbrushing zone) in a manner that is both visually attractive, meets homeowner needs for reduced fire and pest hazards, and is, compatible with ecosystem-based vegetation management.

Mowing equipment shall be lightweight equipment designed for managing turfed grass areas. No heavy, farm type tractors or mowers will be allowed.

The following guidelines help ensure that prairie grass in nature areas, without the benefit of irrigated water, recovers from mowing.

Mow at the end of the day; what is known as "after the sun".
Mow just before or just after a rain. In mowing after a rain wait until the prairie grass is dry just as is done with lawn turf grass.
Mow with a sharp cutting blade. (These practices assist in grass blade tip recovery after a cut (mowing), heat is reduced at night time, there's moisture in the soils to feed water to the recently cut blade tip and the sharp cutting blade makes a clean grass blade cut. Discerning landscape gardeners and discerning golf course personnel spray a quick, light mist of water after cutting lawn turf during weather conditions where blade tip drying can occur just after mowing).

Mow with the smallest, lightest equipment that will do the job.
Mow in a pattern not to duplicate mowing in the same area. (This practice reduces weight stress from tire tracts, and reduces the spread of fungus from equipment moving/rolling across the native grasses. This process is not dissimilar to avoiding the spread of fungus on homeowner lawn turf).
Mow in a pattern to minimize or eliminate u-turning.

Mowing with these guidelines in mind helps to minimize the spread of undesirable fungus spores in urban nature areas from former or previous pioneer species plant growth.

Hypoxylon canker fungus is known to effect the native post oak and black jack oak trees. Brown patch and take all patch fungus are known to effect turf grasses.
These are just two of the many fungi that affect the health of trees and grasses in urban woodlands.

The cedar elm tree has become a prevalent tree in urban forests since lightening strike fires have been suppressed. The cedar elm is a wind germinating, thicket forming, high surface root density, chronically dry soil creating tree for our climate and soil conditions in the Southern Cross Timbers.

The cedar elm tree is susceptible to many of the fungi affecting urban forests and grasses. And because insects tend to prefer the cedar elm tree over the native post oak and black oak trees fungal and other diseases are spread throughout the local ecosystem by way of insects living in and around the cedar elm tree.

Pioneer, invasive and exotic species plant growth in nature areas in hot dry climates result in chronically dry soils. These plants have fast growing, dense root systems.

The short time frame of a hot, dry environment to an environment of large amounts of rain water and a return to a hot, dry environment provides fungus an environment to grow and spread.

The spreading of fungus spores and the allelopathic compounds of non-native plants in the post oak woodlands result in early die off of native grasses if the above care is not taken while mowing.

Heavier mowing equipment with greater cutting velocities spread fungus spores from localized forest floor and prairie areas.

Heavier mowing equipment also displaces the local forest floor organic material layer needed by the native post oak trees as a tree root insulative barrier.

When restoring urban native post oak woodlands and savannas it is necessary for the long term health of the native post oaks and the prairie floor to remove the non-native, pioneer species, thicket forming, invasive/exotic trees and shrubs.

Many local urban forest areas had a previous history as a live stock farm, a utility easement or an area where the homebuilder or developer used a tractor to remove and relocate trees and vegetation from a building site.

All of these occurrences provide a location for bare soils to germinate thicket forming trees. The dead vegetation from a tractor relocating and discarding trees and vegetation provide a location for fungus to feed on the dead plant material.

Any build up of dead organic material, vines and invasive species trees and shrubs in these locations should be removed, or chipped and spread out.

This process will assist to insure that fungus spores do not continue to feed on the decaying organic material.

Long term observation from trained volunteers and personnel should monitor these areas where previous piles of organic material had been allowed to be located.

The results of years of decayed material at location can infect the adjacent native post oaks and black oak trees.

The cedar elm tree is a wind germinating, thicket forming species tree that is susceptible to many diseases and provides a home for spreading fungus.

Privet, briar and grapevine should be removed and mowed to reduce ladder fuel in a fire.

The city of Arlington, Texas provides a “do not plant list” for public lands.

Desirable native trees to plant or maintain in the Southern Cross Timbers nature areas are the chickasaw plum tree, Mexican plum, roughleaf dogwood, and deciduous holly (sometimes called possumhaw holly).

Pecan trees and walnut trees are fine to plant in the Southern Cross Timbers nature areas provided they are planted outside the potential canopy and root growing zone of the native post oak trees.

Mesquite trees that have invaded nature areas should be removed as well as snags where they pose a danger to residents.

Plant native grass seed between Jan. and April, wildflowers in Fall in full sun for Spring germination.

The benefit of achieving this objective is a natural landscape that is attractive, virtually self-sustaining, takes into consideration safety of adjacent homeowners, and is beneficial to eco-system based vegetation management.