

West Texas Nursery

We're Growing for Texas!

Windbreak Management

The goal of managing a windbreak is to maintain the health of individual trees while maintaining the ability of the group of trees to slow the wind. To create effective windbreaks, practices such as weed control, protection of windbreak plants from animals, corrective pruning and proper chemical use are needed.

Weed Control

New plantings are particularly sensitive to drought conditions. Good soil moisture during the first growing season is required for root establishment, and good weed control over several years promotes overall tree growth. Installing strips of black weed-barrier fabric by way of fabric-laying equipment is the recommended method during tree planting (as pictured below). *Installation equipment can be rented through Texas A&M Forest Service.* Squares of weed-barrier fabric can also be installed after planting. After the first 10 years, weed control should focus on reducing the presence of noxious weeds and sod-forming grasses.



Protection from Animals

Livestock and wildlife benefit from windbreaks; however, they can destroy your young trees and shrubs. Livestock should be fenced out for several years, and seedlings should be caged to prevent rabbit and deer browsing.

Pruning

Windbreak trees should not be pruned to look like yard trees. Pruning lower, live branches from trees will decrease density and reduce the effectiveness of the windbreak. Young trees can be pruned to promote strong branches and prevent weak forks in the central leader. Older trees can be pruned to remove diseased or dying branches, competing or rubbing branches and branches which pose a safety hazard to humans or livestock. Texas A&M Forest Service has information about proper tree pruning to ensure the health of the tree.

Herbicides and Fertilizers

Keep in mind that herbicides used in agriculture can also kill trees. Be aware of herbicide drift and study ways to prevent off-site damage from herbicide application. Fertilizers are typically not needed in either young or older windbreak trees. Rapid growth can weaken trees causing wind damage later. If you suspect a critical nutrient deficiency in the soil, perform a soil test and apply nutrients accordingly.

For help in planning, installing and managing a windbreak, contact Texas A&M Forest Service at 806-892-3572.

Windbreak renovation information found on back page.

Windbreak Renovation

All windbreaks need regular maintenance to promote tree health and to make sure the group of trees is functioning as an effective wind barrier. Windbreaks should be assessed based on their intended purpose such as recreation, wildlife, visual screens or reducing the wind. One of the best ways to assess a windbreak is to do a walkthrough and determine its overall health.

Dead or Dying Trees

It may be helpful to determine what caused or is causing trees to die. Are dead trees scattered or is there a group or line of trees dying in a pattern? Scattered dead trees could be from old age or drought. Groups of dead trees could be a result of herbicide damage or a change in soil type or elevation affecting tree health.

What to Do: Eliminate the problem, if possible. Some herbicides persist for a long time in the soil; consult with a herbicide specialist to see if remediation can be done. If trees of a certain species appear to be dying of old age, you can remove and replant that row of trees or plant new trees alongside the trees that have died. If groups of trees are dying from droughty soil conditions, replace trees in that area with a more drought-tolerant tree species.

Insect and Disease Problems

Insects and diseases killing individual scattered trees tend to be part of the natural process and often little can or should be done to prevent this loss. However, where groups of trees are dying from an insect or disease, consult an expert to see if the spread can be stopped. Also, learn to identify harmful, invasive pests by visiting texasinvasives.org.

What to Do: Where groups of trees are dying, attempt to eliminate the problem. Once the problem has passed, replant the area, possibly choosing a more disease-resistant tree species.

Gaps

Gaps in a windbreak allow wind to funnel through the opening.

What to Do: For windbreaks less than 10 years old, gaps may be filled by planting small trees or seedlings. For windbreaks more than 10 years old, transplanting larger trees may be required.



No Green at the Lower Levels

If the trees have grown up and there is no longer any green leaves or small shrubs near the ground, this area is no longer providing good wildlife habitat and wind erosion can also occur. In some situations, this lack of lower vegetation is created by livestock.

What to Do: Fence out livestock, if possible. You may need to add an outer row or two of shrubs to reduce wind and enhance wildlife habitat. Interplanting a row of shrubs within the existing windbreak may also be an option. Existing shrub rows which have grown too tall can, in some cases, be cut to about 8 inches high to encourage sprouting.

Overcrowded and Stunted Trees

Sometimes windbreaks are planted with minimal distance between trees. This is often done so that the trees will fill in the area faster. However, when they get larger, the trees compete with each other for water and space.

What to Do: Start by removing “volunteer” trees that were not planted originally. Where overcrowding is a problem affecting overall stand health, individual trees or complete rows of trees may need to be removed or “girdled” and allowed to die.

Older Windbreaks

If the windbreak has been in place a long time, it may be time to begin planning a replacement windbreak or windbreak rows.

What to Do: If space permits, rows can be added to an existing windbreak. If not, an individual row may be removed and replanted, or trees can be underplanted beneath a row of declining or decaying trees.