

Humans have been damaging trees for years, often inadvertently. This fact sheet spotlights some of the most common forms and suggested preventative or corrective actions.



Tillage has controlled weeds in tree plantings for decades. Done properly, it reduces weed pressure, avoids damage to roots and stems, and minimizes erosion and compaction. Improperly applied, it damages roots, erodes soil and nutrients from the site, shortens tree lives, encourages insects and diseases, and causes offsite damage from sediment. Note the root damage and erosion in the picture. The nearby ditch is nearly silted full. Refer to NRCS fact sheet: http://efotg.nrcs.usda.gov/references/public/ND/tillage_for_weed_control_windbreaks_shelterbelt_fact_sheet.pdf

Use of line trimmers has greatly eased trimming requirements. When performed properly, line trimming can remove unwanted vegetation without touching the tree trunk. Organic mulch rings or tree shelters around the tree can protect the trunk from line trimmers. Used improperly, line trimmers damage trunks opening the tree to disease and insects. Repeated damage can kill the tree or make it more prone to wind damage or failure. Photo shows a damaged and weakened tree stem.



Pruning incorrectly, or not pruning when needed, can greatly shorten the life and function of a tree. Ragged pruning wounds, as shown here, can leave a tree exposed to insects and diseases for decades. One properly timed and conducted pruning, if needed, can reduce future maintenance, increase tree health and vigor, and maintain the function of a tree planting. For specific pruning techniques, refer to: <http://www.aq.ndsu.edu/pubs/plantsci/trees/h1036w.htm>

Unmanaged livestock grazing, such as year-long grazing (see photo) or feedlot scenarios can damage tree limbs, trunks, root collars and roots, severely compact the soil, thereby hastening the demise of the tree and loss of function of the windbreak or forest. Proper livestock grazing avoids damage to native woodlands. In most cases, livestock should be kept from windbreaks, except for aftermath grazing of fields with field windbreaks. The following document provides design for a prescribed grazing system: http://efotg.nrcs.usda.gov/references/public/ND/528_design_install_checkout_guide.pdf



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Damaging Our Trees Fact Sheet (Forestry)



Wildlife habitat establishment is the reason for many tree and shrub plantings. However, some species of trees are particularly attractive to deer, moose, rabbits, beaver, voles, moles, etc. Sensitive species such as oak, hackberry, crabapples, etc., need protection until the tree or shrub is large enough to withstand the browsing or has grown out of the reach of the animal. This may be 5-10 years. Unprotected trees can be killed from repeated browse or seriously misshapen as in the picture of this young pine. Protection can take the form of individual tree protectors, fencing or repellents. The following link summarizes wildlife browse management techniques: http://efotg.nrcs.usda.gov/references/public/ND/deer_fact_sheet.pdf

The use of tree shelters has proven to be very effective at preventing wildlife browse damage and easing herbicide application. However, without proper maintenance, shelters can encourage weak branch angles, mold and fungus development, or provide habitat to rodents. Shelters should be inspected annually to replace broken stakes, remove when trees have grown too large, or straightened after wind or animal damage. The photo shows what can happen to a tree's form when shelters are left on too long. Earlier shelter removal and corrective pruning would have solved the problem. Proper pruning at this time could still fix the problem.



Herbicides applied properly control weeds, reduce soil erosion, increase tree growth, and cause little or no damage to leaves, stems, and roots of trees. When applied improperly, they stress trees making them more susceptible to insects, disease, and weather conditions such as this birch leaf. In worst case scenarios, they outright kill trees. Misapplied herbicides may be those intended to control weeds within the tree planting or those applied to adjacent yards or fields. Following label recommendations greatly reduces herbicide risk to trees. Refer to the following link for information on controlling windbreak weeds with herbicides: http://efotg.nrcs.usda.gov/references/public/ND/herbicide_fact_sheet.pdf

Weed control fabric has greatly increased the survival and vigor of conservation tree plantings. However, without follow-up maintenance, this material can kill trees and shrubs before their time by girdling the trunk, as shown in the picture. Fabric can be hooked with tillage equipment or mowers, tearing out the fabric and many of the trees and shrubs. The following link addresses the maintenance techniques and monitoring to ensure maximum benefits from the fabric: http://efotg.nrcs.usda.gov/references/public/ND/synthetic_mulch_management_fact_sheet.pdf

