



PUT A **STOP** TO LAWNMOWER DAMAGE
PREVENTION STARTS WITH YOU



Getting The Word Out About:

Preventing Lawnmower Damage

How Prevention Starts With You

A Training Resource For Park Maintenance Supervisors

This handout was created as a resource to assist the Parks Division in setting up a lawnmower damage prevention program. It was designed to be used by turf maintenance supervisors to train and teach lawnmower damage prevention to their staff.

Lawnmower damage has reached an unacceptably high level in City parks. Each year a large number of park trees are severely damaged by lawn maintenance equipment operated by the Parks Division. This damage can be avoided when turf maintenance equipment is operated responsibly around trees.

The trees in City parks need your help. Please take a few moments to discuss lawnmower damage and prevention with your staff. Lawnmower damage is a 100% preventable problem. It is infinitely more cost effective to prevent lawnmower damage than it is to remove and replace trees. Preventing lawnmower damage is as simple as keeping turf maintenance equipment away from tree trunks. Become part of the prevention solution, because trees everywhere are counting on you.

Careful and responsible equipment operation is the easiest and most effective way to prevent lawnmower damage. Not only is it your responsibility to see that the grass gets cut, but the trees survive as well.

Getting The Word Out About Prevention

Using this handout and the *Prevention Poster*, please review and discuss with your staff the following:

- ✓ What is lawnmower damage? (on back and pictures)
- ✓ Why is prevention so important? (on back)
- ✓ How to prevent lawnmower damage / how prevention starts with you.
- ✓ Elements of the City's Lawnmower Damage Prevention Program.

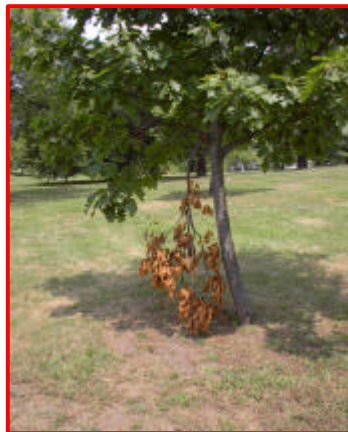
Prevention Success Checklist

- ✓ RESPECT THE "NO ZONE"
- ✓ MULCH TREES
- ✓ Respect Any Installed Protective Devices (i.e. trunk guards)
- ✓ Inform New Staff About Lawnmower Damage Prevention / Establish Routine Prevention Training For All Staff
- ✓ Put Up Lawnmower Damage Prevention Poster
- ✓ Make Staff Aware That The Damage They Cause To Trees Is Being Noted / Check For Damage In The Field

STRESS THE "NO ZONE" AROUND TREES
No Lawnmowers w/in 6" of a Tree Trunk
No String Trimmers w/in 3" of a Tree Trunk



Be alert when operating equipment around trees. Trees can't move to get of your way.



Be careful around trees. Don't force your mower to operate in confined areas. If you break a branch report it so it can be removed.



Keep your mower out of the "NO ZONE" to avoid this kind of repeated damage.



Keep your string trimmer out of the "NO ZONE" to avoid this kind of repeated damage.

Explaining Lawnmower Damage

When turf maintenance equipment strikes a tree, it penetrates the bark and phloem thus damaging the cambium. The vascular cambium is a thin band of specialized cells from which a tree grows. As seen in the diagram below, the vascular cambium is very close to the surface of a tree trunk. Once the vascular cambium is damaged, it cannot be regenerated; thus lawnmower damage permanently diminishes a tree's capacity to grow.

Damage also occurs to the phloem and bark. Phloem is part of a tree's vascular system; the part of a tree that transports minerals, nutrients and water from the roots to the leaves and vice versa. Damage to the phloem reduces a tree's ability to transport needed minerals, nutrients and water to grow. Lawnmower damage also creates an open wound that allows for the entry of decay and other harmful microorganisms. The picture below depicts the internal damage caused by a lawnmower injury. The red box represents the portion of the tree that had internal decay at the time it was removed. Trees, unlike humans, do not regenerate new tissue so any injuries that occur remain with that tree for the rest of its life.

Lawnmower damage also weakens and stresses a tree. Thus it is susceptible to a variety of other problems that may contribute to its decline and death. Young trees are even more susceptible to lawnmower damage as they lack the thick protective bark and the stored resources to recover from an injury. **Any amount of lawnmower damage can be fatal to a tree.**

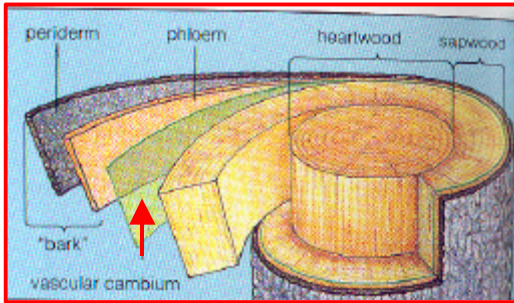


Diagram: *Biology the Unit and Diversity of Life*
Picture: *Principles and Practices of Planting Trees and Shrubs*



Lawnmower Damage Prevention Program

Three common underlying causes of lawnmower damage are:

- lack of knowledge to the damage lawn maintenance equipment can do to trees,
- lack of accountability for the damage caused and
- lack of care when operating equipment around trees.

The City of St. Louis Forestry Division has developed a lawnmower damage prevention program, which addresses these causes through **prevention, protection and accountability.**

Training and awareness can help prevent and protect trees when turf equipment operators operate their equipment responsibly and with care around trees. Mulch and trunk guards can help to protect trees as well. Please remember and remind your staff, that trunk guards and other protective measures lose their protective value when they are not respected and damaged.

The best protective device is still the equipment operator that keeps his/her equipment away from trees.

Lawnmower damage is the result of careless equipment operation around trees and poor supervision of turf maintenance staff. The Forestry Division will be conducting surveys in City parks to assess mower damage. These reports will be submitted to the Director of Parks, Recreation and Forestry and the Parks Commissioner for review.

The Importance of Prevention

The large trees that grace City parks will not always be present. Small trees need to be planted so they can become the large, mature trees of tomorrow. As a Parks Division employee, you are responsible for the care and maintenance of City parks which includes a responsibility to maintain and promote a healthy tree population. The majority of people living in an urban environment look to parks as a source of mature and healthy trees. What kind of a tree population are we leaving for future generations with such a high incidence of lawnmower damage?

Lawnmower damage also advertises unprofessionalism on every damaged tree. We must promote and advertise ourselves as professionals equal to the task of caring for and maintaining every aspect of a park. The public more often than not, notices lawnmower damage.

Lawnmower damage costs money, as it is expensive to replace trees. Extensive damage may also reduce the City's opportunity to obtain tree-planting grants and may also reduce participation in the memorial tree program. Many trees in City parks were planted in honor or in memory of someone and the contributors expect these trees to be well cared for when they make their donation.

Prevention saves money, is good management and stewardship of City parks and promotes us as professionals.



MULCH SAVES TREES

Mulch Your Trees



The end result of mower damage

