



Safety Manual
Section 17
Grounds Maintenance

17. Grounds Maintenance

Introduction

The following sections provide general guidelines and requirements for grounds maintenance safety. This chapter covers the following topics:

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17.1 General Lawn Safety

Texas State University - San Marcos spends considerable time, effort, and money on grounds maintenance. From flower care, to lawn care, tree trimming, and leaf blowing, Texas State University - San Marcos employees are responsible for safely maintaining the grounds on campus. Gardening tools and mechanical lawn care devices, such as lawn mowers, power blowers, and chain saws, present special safety concerns for grounds maintenance personnel.

Common landscaping accidents include the following:

- Cuts, lacerations, or amputations from whirling mower blades.
- Bruises or broken bones from flying projectiles.
- Burns from hot equipment parts
- Electrical shock from faulty grounding or defective electrical cords
- Back strain from improper equipment usage
- Slips, trips, and falls

Regardless of the type of landscape equipment you use, follow these basic guidelines to ensure optimum safety:

- Read the equipment owner's manual.
 - Use the right equipment for the job at hand.
 - Inspect the equipment before each use.
 - Know how to control and stop the equipment quickly.
- Wear personal protection equipment, as necessary:
 - Eye protection
 - Hearing protection
 - Long pants
 - Sturdy shoes
 - Work gloves
- Apply sunscreen to exposed areas of skin.
- Be careful to avoid fatigue and heat stress (refer to the
- General Safety chapter in this manual for more information):
 - Drink plenty of water
 - Take breaks
- Do not operate powered equipment if you are tired, sick, or taking medication.
- Take special precautions when working with electrical equipment. If you are using an extension cord, take care not to accidentally cut it.
- Do not smoke around gas powered equipment. Allow hot equipment to cool before refueling.
- Make sure that all guards are in place and in good condition.

IMPORTANT:

Keep pedestrians and bystanders at least 30 feet away when using powered equipment.



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17.2 Hand Tools

Although garden hand tools tend to be safer than powered equipment, common gardening tools, such as rakes, shovels, and hoes cause thousands of injuries each year. Follow these guidelines for using garden hand tools.

- Keep hand tools in good condition. Replace split or rotten handles. Keep blades sharp.
- Buy quality tools that fit your needs and your build. For example, if you are tall, choose tools with handles that are long enough to prevent you from stooping over your work.
- Never leave a rake, shovel, or hoe on the ground facing up. Foot injuries from exposed metal and head injuries from handles that pop up unexpectedly are the main hazards associated with these tools.

17.3 Mower Safety

Mowers are the most common type of lawn care equipment. To avoid injury with power mower equipment, you must pay close attention to your surroundings. Whether you use a riding mower or a walk-behind mower, follow these guidelines for lawn mower safety:

- Conduct a premowing inspection of the lawn and remove any debris, rocks, limbs, or other items that could become a projectile. Look for concealed hazards such as holes.
- Keep hands and feet away from moving blades.
- Fill the tank with gas before beginning work. (By filling the tank initially, you can avoid having to fill the tank later when it is hot.)
- Replace loud or faulty mufflers.
- Shut off the engine before unclogging, servicing, or adjusting the mower and before removing the grass bag. For added protection, remove the ignition wire before working on the machine.

A. Riding Lawn Mowers

In addition to the general guidelines for mower safety, follow these guidelines for riding lawn mower safety:

- Before starting the engine, make sure the transmission is out of gear and the mower blade clutch is disengaged.
- Never allow extra riders on the lawn mower.
- Slow down when turning and when working on slopes. Mow up and down slopes rather than across them.
- Always look behind you before backing.
- If you hit a large rock or stump, stop the mower and inspect the blades and shaft. Replace damaged blades.
- Never leave a running lawn mower unattended. Before leaving the seat, park the mower on a flat area, disengage the mower blades, and remove the ignition key.



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B. Walk-Behind Mowers

In addition to the general guidelines for mower safety, follow these guidelines for walk-behind mower safety:

- Wear sturdy shoes with good traction. Never wear sandals around walk-behind mowers.
- Do not bypass the safety device that stops the blade when the operator releases his/her grip on the handle.
- Mow across slopes rather than up and down slopes.
- Work slowly and patiently when mowing tall grass or tough weeds. Forcing the mower may cause repeated clogs and engine stalls.
- Never leave a running mower unattended. If you stop momentarily, cut the throttle to idle and make sure the mower will not roll away.

17.4 Chain Saw Safety

Chain saws are ideal for trimming trees and cutting fallen limbs into smaller pieces. Unfortunately, chain saws are associated with many serious injuries each year. Common chain saw hazards include the following:

- Chain cuts
- Falling trees and limbs
- Strains and sprains
- Burns

To avoid injury, you must respect chain saw hazards and handle chain saws skillfully. In addition to general lawn safety guidelines, follow these instructions for safely using chain saws:

- Stay alert while sawing. Most injuries occur below the waist when the operator is not paying attention.
- Do not use a chain saw alone. Have someone else stand nearby in case of an emergency.
- Choose and inspect your chain saw carefully:
 - Use the correct size chain saw for the job at hand.
 - Ensure that the chain is sharp and the tension is taut.
 - Ensure that smaller chain saws have a safety tip to prevent kickbacks. (Kickbacks cause one third of all chain saw injuries.)
- Wear a hard hat to protect you from falling limbs.
- Always operate a chain saw with two hands.
- Limbs that are at shoulder height or higher present a special safety problem. Use a ladder so that the saw is at a lower and safer position relative to your body.
- Never allow the tip of a running chain saw to touch the ground. This could cause a serious kickback injury.

- To avoid kickback injuries; stand to the side of a running chain saw. Do not stand directly behind it.
- Move brush and limbs as you work to maintain a clear operating area.
- Never force a chain saw through a limb.
- Never stand on a log or limb while cutting it.

17.5 Power Blowers

Because power leaf blowers produce air gusts up to 200 mph, you must follow all manufacturers' safety precautions. Always walk towards your work when using a power leaf blower. Do not back away from your work.

17.6 Trimming Equipment

Follow these safety guidelines for trimming equipment such as hedge trimmers, string trimmers, grass shears, and edgers:

- Avoid touching rocks, debris, and gravel with trimming equipment. These items could cause a serious injury if a kickback occurs.
- Make sure all screws and chains are tight. Vibrating equipment can cause screws to loosen.
- Walk towards your work. Do not back away from your work when using a trimmer.

17.7 Chemical Products

Information on the safe use of pesticides (insecticides, herbicides, etc.) and fertilizers is given in Chapter 14, Agriculture Safety, of this manual.