



GROUNDWORK SAFETY RULES, POLICIES AND PROCEDURES

The following sections provide general guidelines and requirements for grounds maintenance safety and have been prepared to assist you based on your job descriptions and nature of work.

General Lawn Safety

From flower care to lawn care, tree trimming and leaf collection and fertilizing, employees are responsible for safely maintaining grounds. Gardening tools and mechanical lawn care devices such as lawn mowers, power blowers and chain saws, present special safety concerns for grounds maintenance personnel.

Potential 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;
- Eye injuries from tree and shrub limbs, flying particles and debris; and,
- Insect bites and injuries from poisonous plants.



Regardless of the type of landscaping 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, including eye protection, hearing protection, long pants, steel-toe shoes and work gloves;
- Apply sunscreen to exposed areas of skin;
- Be careful to avoid fatigue and heat stress;





- Drink plenty of water;
- Take breaks;
- Do not operate powered equipment if you are tired, sick or taking certain medications;
- 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; and,
- Make sure all guards are in place and in good condition.

It is important to keep pedestrians and bystanders at least 30 feet away when using powered equipment.

Blocking Roads or Parking Lots

1. When directing traffic, all personnel are required to wear an orange vest and use a standard warning flag.
2. When picking up debris on the 4-lane highway, safety vests must be worn. Also, post the appropriate warning signs.



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. Remove and repair split or rotten handles.
- 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.



Power Equipment and Tools

1. Power Blowers (Back Pack 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. Be aware of pedestrians or others in the area.



- a. Ear Protection is required—either earplugs or earmuffs. This is an absolute necessity.

- b. Wear safety goggles.
- c. Orange vests are required when operating on roads and in parking lots.
- d. Safety cones should be placed at the discretion of the Foreman or Crew Leader in his/her particular area.
- e. "Men Working" signs should be placed along roads and at the entrance to parking lots. These also should be placed at the discretion of the Labor Foreman or Crew Leader in his particular area.
- f. Always walk towards your work when using a power leaf blower. Do not back away from your work.
- g. Be aware of pedestrians or others in the area.



2. Weed Eaters

- a. Safety glasses, goggles or mesh-type glasses are required.
- b. Ear protection will be the operator's decision. Usually the noise level of a weed eater is not that high.
- c. Full-length pants, preferably blue jeans are required.
- d. If an operator is allergic to insect bites, do not assign him/her to such a task.



3. General Mower Safety

As we enter the mowing season, it's time to brush up on your mowing safety procedures to increase your productivity and help keep yourself free of injury. Although many users have years of mowing experience, sometimes safety precautions are overlooked and the results can be dangerous.

Staying aware of sight conditions, knowing your machine and constantly being alert can help you avoid accidents and injury. Of course, every operator should always refer to the operator's manual for routine maintenance schedules and safety tips. Here are some general mower-safety guidelines.

Before Mowing

- a. **Dress for the job.** Safety precautions are not limited to reading your operator's manual and performing maintenance on your machine. In fact, safety begins with the clothes you wear to work. Choose close-fitting clothes and long pants, hearing protection, eye protection, work boots with traction and heavy gloves (when handling blades). Do not wear loose-fitting clothes or jewelry which can get caught or hung up on a machine and cause injury.



- b. **Know your machine.** All mowers of a given type have some of the same basic equipment parts. For example, front-deck mowers all have features such as panel controls, seat controls, foot controls, fuel tank, fuel filter, engine oil fill and check, hydraulic oil fill and check, mower deck, grass deflector, height adjustments, radiator and air cleaner. However, every machine includes unique features, so read your operator's manual to familiarize yourself with your machine. As any minor and major machine problems arise, report them to your supervisor or mechanic. Reporting problems right away will help you avoid potential hazards.
- c. **Read warning labels and check safety features.** There are dangers associated with operating any power equipment so pay attention to all warning labels and safety features on your mower. Also, check the safety guards and devices to ensure that they are in proper working condition. Never operate your mower if your safety guards and devices are not in place.
- d. **Conduct daily inspections.** Always conduct your daily mower inspections on a hard, flat surface away from the mowing area. Open the hood and check the mower's oil level. Check the hydraulic system for the appropriate level of fluid. Inspect the cooling system to make sure there is enough coolant in the radiator. Clean any debris off the screen and front of the radiator. Check the condition of your air-restriction indicator or the condition of your air cleaner and empty any debris found. Ensure that all parts such as belts, pulleys, catchers and guards are in proper working order. Also, check the tire pressure. Always refer to your operator's manual for step-by-step start-up procedures and daily machine inspections.
- e. **Adjust the cutting height of your deck.** If you are using multiple pieces of mowing equipment on the same landscape area, make sure the height of your mower deck is consistent on all machines so you'll have a uniform cut. Never adjust the mower height when the engine is running. All adjustments should be made while the engine is turned off.
- f. **Check your collection/discharge system.** Most commercial mowers will have some combination of material collection system (MCS), side discharge or mulching system. Always check to make sure that your MCS, discharge chute and mulching attachments are properly secured and in good working order. Never start the mower if attachments are not securely fastened.
- g. **Check the fuel level.** Check your mower's fuel level and fill if necessary so that you start your day with a full tank of fuel. If you refuel during the day, move your mower to a flat, concrete surface, turn the engine off and allow the engine to cool. (Refilling after lunch or an afternoon break is convenient). Carefully fill the fuel tank and avoid spilling. (Spilled gasoline will evaporate, releasing hydrocarbon emissions into the atmosphere). Also, never smoke around gasoline.



- h. **Clear your work area.** Before you begin your job, walk the mowing area and clear all hidden hazards such as rocks, stumps and hidden debris like broken glass, bottles and miscellaneous materials. Injuries may occur from debris that is projected into the air by mower impact. Projected debris can cause injuries to operators, pedestrians and property.
- i. **Inspect your work area for nature's hazards.** While inspecting your work area for debris, be on the lookout for bees, fire ants and poison ivy. Taking note of potential area hazards will increase your productivity as well as your safety. Also, avoid improper working conditions such as overly saturated grounds, which can cause slippery conditions.

While Mowing

- j. **Make a perimeter pass.** Always start your mower from the operator's seat—never while standing beside the mower. Once you are ready to mow, engage the PTO (Power Take Off). When engaging the blades, do so at the lowest recommended engine setting rather than at full throttle. Release the brake and gradually depress the foot pedal to begin forward motion. Start by making a perimeter pass with the discharge chute or grass catcher to the inside—that is, away from the sidewalk, pavement, curb or whatever structure borders the turf. This will keep the mower from hitting curbs, trees, bushes and any other obstacles. The perimeter pass will allow you to make U-turns in the grass, thereby avoiding tire and grass stains on the concrete.
- k. **Start mowing.** Always mow in straight lines, alternating directions and changing the pattern every week, if possible. For the best-quality cut, make sure your blades are sharp and mow with the engine running at maximum speed. If you are mowing long grass, use the highest cut setting for the first pass, then make a second pass to cut the grass at a lower setting. Discharge clippings toward previously cut lawn areas. Never position the side-discharge chute toward people or property.
- l. **Know your surroundings.** To avoid injury to yourself or others, pay attention to people around you. If a person or animal approaches you while working, stop your mower and turn off the engine. You may resume mowing once the work area is clear of all people and animals.
- m. **Avoid rubbing objects.** When mowing, keep a safe distance from trees and other landscape features. Avoid hitting or rubbing the mower or its tires on any buildings, cars, signs, trees and other property features. Serious landscaping and property damage can occur, not to mention unnecessary wear to your equipment.
- n. **Pick up any missed debris.** If you see any debris that you missed in your initial inspection, stop the machine, turn off the engine and pick up the debris. Do not attempt to clear debris while the machine's engine is still running.





- o. **Unclog the deflection chute.** Sometimes while mowing, the deflection chute can become clogged with grass clippings. To unclog it, turn off the engine and make sure the blades are stopped. To ensure safety, disconnect the spark plug wire and use a tool or stick to clear grass clippings. **NEVER** clear the deck or chute with your hands and **NEVER** place your hands or feet near the cutting blades.
- p. **Be extra careful on slopes.** Always mow up and down slopes—never mow across slopes. Decrease your speed when mowing down slopes or around sharp corners to help prevent tipping. Maintain minimal ground speed and make wide gradual turns. Avoid sudden starts, stops and turns. Remember: if it looks dangerous, it almost certainly is dangerous so use caution accordingly.



After Mowing

- q. **Shut down before performing maintenance.** Refer to your operator's manual for proper shutdown procedures. Always shut down your machine from the operator's seat—never dismount from a running mower. Make sure that the mower is completely stopped and the engine is off before you begin your clean-up and maintenance procedures. Your operator's manual will detail specific daily clean-up and maintenance tasks.
- r. **Clean your mower.** Your mower should be cleaned after each job by removing clippings and other landscaping debris from the mower deck and deflection chute. Lingering debris can cause unwanted buildup and potential malfunctions or breakdown of parts. Also, accumulation of grass, leaves or excessive grease can be a fire hazard.
- s. **Perform routine maintenance.** Preventive maintenance is key to your machine's longevity. Although your operator's manual will provide specific routine maintenance procedures, certain common maintenance procedures apply to all commercial mowers. After each mowing job, you should check your mower's tire pressure and adjust if necessary. Check all fluid levels, belts, guards and blades. From your inspections, prepare a list of potential maintenance problems for your supervisor or mechanic.
- t. **Tend to repairs immediately.** If your machine requires any repairs, tend to them immediately. Delaying machine and parts repairs will delay productivity. If repairs are overlooked and the mower is reused, damage to additional mower parts or operator injury may result.
- u. **Maintain recommended maintenance schedule.** Refer to your operator's manual for routine daily, monthly, quarterly and yearly maintenance procedures. Keeping your machine in top condition can help you increase your productivity and decrease any risk of injuries.



4. Walking Behind Mowers

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



- a. Wear steel-toe shoes with good traction. Never wear sandals around walk-behind mowers.
- b. Do not bypass the safety device that stops the blade when the operator releases his/her grip on the handle.
- c. Mow across slopes rather than up and down slopes.
- d. Work slowly and patiently when mowing tall grass or tough weeds. Forcing the mower may cause repeated clogs and engine stalls.
- e. Never leave a running mower unattended. If you stop momentarily, cut the throttle to idle and make sure the mower will not roll away.
- f. Employees are to wear canvas gloves when removing, sharpening or installing lawn mower blades.
- g. Before removing a mower blade, first disconnect the spark plug wire. During blade removal, the wire should not touch the spark plug.
- h. Side discharge chutes will be left down.
- i. Mowing longer than four hours a day requires hearing protectors.

5. Chain Saws

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:

- a. Ear protection, safety glasses or goggles are required when operating a chain saw.
- b. Use safety gloves.
- c. Stay alert while sawing. Most injuries occur below the waist when the operator is not paying attention.
- d. Do not use a chain saw alone. Have someone else stand nearby in case of an emergency.
- e. Inspect your chain saw carefully.
- f. Use the correct size chain saw for the job at hand.

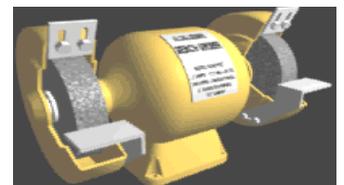


- g. Ensure that the chain is sharp and the tension is taut.
- h. Ensure that smaller chain saws have a safety tip to prevent kickbacks. (Kickbacks cause one third of all chain saw injuries).
- i. Wear a hard hat to protect you from falling limbs.
- j. Always operate a chain saw with two hands.
- k. 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.
- l. Never allow the tip of a running chain saw to touch the ground. This could cause a serious kickback injury.
- m. To avoid kickback injuries, stand to the side of a running chain saw. Do not stand directly behind it.
- n. Move brush and limbs as you work to maintain a clear operating area.
- o. Never force a chain saw through a limb.
- p. Never stand on a log or limb while cutting it.
- q. When loading or hauling brush, safety glasses/goggles are to be worn.
- r. Canvas gloves are to be worn when handling brush; claps are recommended.



6. Electric Bench Grinder

- a. The shields on the grinder must be in place.
- b. Eye protection is required when using the bench grinder.
- c. A full-face shield is also provided and is not to be removed from the work area.
- d. Canvas gloves are to be worn while performing any grinding.



7. Hedge Trimmer (Power)

- a. Safety glasses/goggles are to be worn.

8. Morbark Wood Chipper

- a. Safety glasses/goggles and ear protection are to be worn when operating the chipper.
- b. Follow all safety rules of Morbark Chipper Company.



9. Sweeper and Tractor

- a. No riders; a safe speed must be followed.

10. Riding Lawn Mowers

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



- a. Before starting the engine, make sure the transmission is out of gear and the mower blade clutch is disengaged.
- b. Side discharge chutes will be left down except in large open areas where cars and people are not at risk.
- c. Never allow extra riders on the lawn mower.
- d. Slow down when turning and when working on slopes. Mow up and down slopes rather than across them.
- e. Always look behind you before backing.
- f. If you hit a large rock or stump, stop the mower and inspect the blades and shaft. Report damaged blades.
- g. Never leave a running mower unattended. Before leaving the seat, park the mower on a flat area, disengage the mower blades and remove the ignition key.
- h. Mowing longer than 3 hours a day requires hearing protection.
- i. Crew Supervisor will determine which slopes are too steep to mow.

11. Rubber Stretch Cords

- a. Because of the “snap-back” hazard, eye protection is required when using rubber stretch cords.

Trash Pick-Up

Chemicals, biological waste or unboxed sharps should not be picked up for disposal. Contact the Safety Unit if you encounter these items in the trash.



Gasoline

Approved metal or plastic cans will always be used for gasoline storage. Do not allow the can to sit in the direct sunlight. Use a bonding wire and clip for pouring liquids from one metal container to another.

Power equipment shall not be refueled while running or while hot.



Trimming Equipment

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

- Wear safety goggles;
- 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.
- If using electric trimmers, keep extension cords clear of blades.



Tree Trimming

This section covers removal of trees taller than 12' and removal of limbs, which cannot be reached from the ground. Employees who perform tree-trimming duties must first complete the tree trimming safety program.

1. All employees shall be trained in safe tree trimming operations.
2. Hard hats, safety shoes and eye protection are always required.
3. Tailgate planning conferences shall be held prior to each job. The planning conference shall review all safety considerations and methods to avoid accidents.
4. The tree shall be evaluated and checked for rot damage and electrical lines running through it or near it.
5. All climbing equipment and ropes shall be inspected prior to use. Only approved climbing ropes shall be used.
6. Street work safety procedures shall be followed when working near streets. Areas below trees shall be roped off or posted to warn to public.

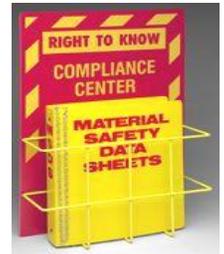


Chemicals Products/Pesticides

Information on the safe use of pesticides (insecticides, herbicides, etc.) is given in this manual. When using pesticides, follow these safety guidelines:

- Use rubber gloves, suits and goggles or face shield when working with pesticides.

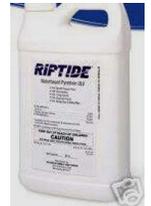
- Read labels carefully for proper use, mixing and disposal.
- Empty containers must be triple rinsed, then placed in a dumpster.
- When applying pesticides, mix only the amount necessary for the particular job.
- The Material Safety Data Sheet (MSDS) is available to all employees. Handling and environmental specifications for every chemical can be found on the MSDS.



Pesticide Use

Pesticides may not be used without the supervision or direction of the Grounds Superintendent (licensed applicator).

1. The licensed applicator will:
 - a. Choose the pesticide;
 - b. Monitor the checkout log;
 - c. Specify protective equipment and clothing (as indicated on the label);
 - d. Coordinate mixing;
 - e. Specify where and how the pesticide can be applied; and,
 - f. Coordinate rinsing and disposal of the containers.



2. Low Pressure Sprayers (Pump-Up, Bean Sprayer or Solo Sprayer).

- a. Rubber gloves (canvas or cloth gloves are not acceptable) are required when filling, cleaning and spraying and any other protective apparel as required on the label.
- b. Chemical goggles only (safety glasses or dust goggles are not acceptable) are to be worn when filling, cleaning equipment and spraying.
- c. The exteriors of the rubber gloves are to be cleaned after each use.
- d. Appropriate warning signs are to be posted in the area of applications and left until re-entry can occur if exposure is a concern.



3. High Pressure Spraying

- a. This task will be performed only under the supervision of persons holding a valid pesticide applicator's license.
- b. Respirators and protective clothing will be worn if there is a possibility that airborne concentrations of pesticides will exceed safe limits or if required by label (applicator and auxiliary helper).
- c. The applicator will be responsible for any auxiliary help he/she has and will make sure the helper observes all safety precautions and wears the proper safety apparel.
- d. The applicator will follow manufacturer's safety recommendations which are printed on the container labels.
- e. Appropriate warning signs are to be posted in areas of application and left until safe re-entry can occur if exposure is a concern.



Excess Pesticide Disposal Procedure

The best way to dispose of spray chemicals is to plan the spray projects so that you do not have excess spray solutions left in the spray tanks. In the event there is solution left after completing the spray application or the desired target and area, contact the Grounds Superintendent. He/She will direct you to other target areas where the spray can be applied according to the label to control an approved desired target.

After a spray project is complete, the sprayer must be cleaned with an approved chemical tank cleaner following the directions noted on the label to create the proper cleaning mixture. This mixture shall be agitated vigorously in the tank for a complete cleaning of the internal tank surface. This solution shall also be run through the hose and gun and discharged back into the spray tank. After this process has been completed, the spray unit shall be taken to a target site and the mixture applied following the original chemical label instructions until the tank has been completely emptied. All safety and application procedures shall be followed during this process.



If the applicator feels that the chemical residue in the tank is unsafe for the target site or the environment in general, then the chemical and the tank cleaner mixture shall be stored in approved chemical storage barrels. These barrels will be picked up by a certified hazardous waste contractor for disposal.