

Lawn Maintenance Safety

David W. Smith, Extension Safety Program
The Texas A&M University System

Most homeowners do not consider lawn maintenance to be dangerous. However, the Consumer Product Safety Commission (CPSC) reports that more than 230,000 people per year are treated for injuries from lawn and garden tools. These tools include lawn mowers, trimmers, edgers and other power equipment. Injuries include minor to severe burns and lacerations, broken and dislocated bones, eye injuries and loss of fingers, toes and legs. In 2001, the CPSC reported 167 deaths associated with lawn and garden tools, more than half involving riding lawn mowers and garden tractors.

You can avoid accidents like these by making safety a regular part of lawn maintenance, particularly when using lawn mowers and other power tools.

Lawn Mowers

Mowers can be walk-behind or the riding variety. Both types of mower present similar hazards to operators, bystanders and animals that may be nearby. Rotary blades under the mower rotate at about 200 miles per hour, or 300 feet per second. Though somewhat protected by guards, all mowers are dangerous when the operator uses poor judgment or fails to follow safety procedures.

Walk-Behind Mowers

Walk-behind mowers include self-propelled and push-type mowers. These mowers are commonly used by young children because they are lightweight and easy to manipulate.

Several safety features on these mowers protect users against accidental injury. For example, all new mowers have directional flaps or shielded discharge outlets that direct grass and any other projectiles away from the operator. Since 1978, walk-behind lawn mowers have been equipped with



a clutch handle or switch that stops the blade within 3 seconds after the operator lets go.

Walk-behind mowers can be extremely dangerous to operators and bystanders when safety guards are removed, safety shut-down devices disabled or when the mowers are operated in a manner or environment that is unsafe. To prevent injury:

- Remove any toys, limbs, rocks, wire or glass from the yard before mowing. Locate all sprinkler heads, exposed electrical wire or cords, tree stumps or exposed roots and pipe.
- Keep your hands and feet away from the blade area while the mower is running.
- Never reach into the discharge chute to clear away grass or other obstructions when the blades are turning.
- Never bypass the engine kill handle or remove the shields when mowing.
- Mow back and forth along the side of a steep hill, never up and down the slope.
- Don't point the discharge chute toward bystanders.
- Wear boots or shoes with good traction to avoid slipping or falling.
- Don't allow children to operate a walk-behind mower they cannot safely control.
- To avoid spilling fuel, use a funnel when refueling a hot engine. Clean up any fuel spills immediately.
- Never smoke while servicing, operating or refueling a mower.
- Wear long pants, hard shoes, safety glasses, earplugs, etc., to protect yourself against flying debris and noise.
- Allow the engine to cool before returning it to a storage shed.
- Turn the power off and disconnect the spark plug wire before cleaning, inspecting, adjusting or repairing the cutting blade.

- Don't run a gasoline-powered mower inside a storage shed-this could cause carbon monoxide poisoning.
- Never touch the spark plug with your hand or a tool when the mower is running.
- Never leave a running mower unattended, especially when children are nearby.
- Don't mow a wet lawn. Slipping on rain-soaked grass is the leading cause of foot injury by power mowers.
- Keep the cord behind you when using an electric mower. Trail it over your shoulder and always mow away from the cord.

- Don't operate a riding mower when under the influence of alcohol or other drugs that impair judgment.
- Don't let children play on the lawn where you are mowing; they could be struck by flying objects.
- Don't let children operate riding mowers until they have had proper instruction and can safely steer, brake and adjust gears.

Riding Mowers

Riding mowers save homeowners valuable time and energy. These small tractors are much more powerful than walk-behind mowers and move two to three times as fast. To avoid accidents on riding mowers or larger tractors, it is important to use safe driving techniques and safety devices.



According to the CPSC, in 2001, more than half the 167 deaths from lawn and garden tools involved riding mowers and garden tractors.

Modern riding mowers come with seat safety switches that stop the cutting blades whenever the driver leaves the seat. Some riding mowers also have safety interlocks that prevent the mower from starting unless all controls are in proper position and the driver is in the seat. In addition to the safety tips listed for walk-behind mowers, take these precautions when using a riding mower:

- Don't allow extra riders.
- Test drive the mower and become familiar with it before engaging the blades.
- Put the riding mower into neutral before starting it or turning it off.
- Watch for holes and hidden hazards.
- Don't drive too close to a creek, ditch or any other obstruction.
- Make sure the transmission is in neutral and the mower blade disengaged before starting the engine.
- Mow up and down sloping terrain. Do not mow across a slope.
- Keep the mower in gear when going down slopes.
- Slow down when turning and when working on slopes.
- Always look behind you before backing the mower.
- Disengage the mower blade when on pavement, sidewalks or gravel lanes.

Power Tools

In addition to mowers, other power tools help us manicure and shape our landscapes. Electric and gas-powered weed trimmers, lawn edgers, hedge trimmers and leaf blowers do the work that used to take days and backaches to accomplish. However, this equipment can be dangerous. In 1989, the CPSC reported that power lawn trimmers or edgers caused about 4,600 injuries requiring emergency-room treatment. About one-third of the injuries were to the eye.

Weed trimmers can throw stones, sticks and other objects at high speeds. Lawn edgers with metal blades can cut through underground objects, splinter concrete or cause sparks. Hedge trimmers are sometimes heavy, and fatigue can cause cutting accidents. Leaf blowers are loud and can produce air gusts in excess of 200 miles per hour that can lift small rocks and other objects into the air. Users must take special care to prevent these accidents with these tools.

Weed Trimmers

- Before trimming, remove glass, limbs, rocks and trash that could become projectiles.
- Watch for exposed electrical wires, communication lines and extension cords to avoid damaging them with the trimmer string.
- Don't remove protective guards and string guides.
- Monitor the string length. Automatic-feed and bump-feed trimmers may release more string than you think and cause the string to strike you unexpectedly.
- Make sure all children and bystanders are out of the way before you begin trimming.
- Protect yourself with long pants, long-sleeve shirts, gloves, hard boots, goggles or safety glasses,, and earplugs.
- With electric trimmers, inspect all extension cords for cuts, nicks or scrapes. Exposed wires are an electrical hazard. Replace damaged cords immediately.
- Don't operate electric trimmers around water puddles or in wet conditions.



- Unplug electric trimmers and turn off gas-powered trimmers before inspecting, cleaning, adjusting or replacing the string.
- Never leave an electric trimmer plugged in or a gas-powered trimmer running while unattended.
- Before refueling, place the gas-powered trimmer on the ground and allow the engine to cool.

Lawn Edgers

- Make sure all children and bystanders are at a safe distance before starting the edger.
- Don't start an edger if the blade is touching the ground. It could move unpredictably and injure your feet or legs.
- Watch out for exposed electrical wires, communication lines and extension cords that could be struck by the edger.
- Wear goggles or safety glasses to guard against flying objects.
- Don't remove the protective guards or shields.
- Operate the edger at full blade speed.
- When edging along roadways, stay as close to the curb as possible to avoid being hit by passing vehicles.
- Never leave an electric- or gas-powered edger plugged in or running while unattended.
- Unplug or turn off an electric or gas-powered edger before inspecting, cleaning, adjusting or replacing the blade.

Hedge Trimmers

- Wear gloves, goggles or safety glasses and ear plugs.
- Make sure all screws, blades or chains are secure. Vibrating equipment can cause the screws to loosen.
- Keep extension cords clear of blades.
- Disconnect extension cords and shut down hedge trimmers before inspecting, cleaning, adjusting or replacing the blades.
- Do not leave hedge trimmers unattended; they have sharp blades and can injure children and others.
- Never use an electric hedge trimmer overhead. If the trimmer becomes lodged, disconnect the power before trying to dislodge it.

Leaf Blowers

- Don't use the blower to clean debris off of yourself.
- Be aware of pedestrians and others in the area. Don't direct the blower toward bystanders.
- Wear goggles or safety glasses and earplugs.
- With electric blowers, inspect all extension cords for cuts, nicks, scrapes or exposed wire that could

pose an electrical hazard. Replace damaged cords immediately.

- Don't operate electric blowers around water puddles or when conditions are wet.

Lawn and Garden Chemicals

Homeowners and landscape maintenance companies periodically apply natural and synthetic insecticides, herbicides and fungicides to control a variety of insects, weeds and plant diseases. If you use a lawn and garden chemical, read the product label carefully to determine its toxicity to humans, animals and the environment. The label will give the recommended application rate and instructions, and will list any protective clothing or equipment required. Use only the amount of chemical specified.



Consider the potential effects on the environment and beneficial insects in your landscape when selecting lawn and garden chemicals. For example, instead of using a general-purpose pesticide, use a product that treats only the specific problem.

Other precautions include:

- Keep children and animals away from the application area. Follow label directions regarding re-entry into the treated area.
- Protect your skin, eyes and nose during and after application.
- Close all doors and windows to the house.
- Remove animal water and food containers. Protect bird baths and fish ponds from chemical exposure.
- Avoid over-irrigating treatment area because pesticides may be washed away or become concentrated in standing water puddles.
- Use only the recommended amount. Excess application will not do a better job.
- After application, store extra chemicals out of reach of children and pets.
- Never store lawn and garden chemicals with or near food, animal feeds or medical supplies.
- Keep chemicals locked in a well-ventilated storage area, where temperatures stay above freezing and less than 90 degrees.

Taking precautions when using and maintaining lawn equipment and chemicals can help you avoid accidents associated with lawn maintenance.

Texas A&M AgriLife Extension Service

AgriLifeExtension.tamu.edu

More Extension publications can be found at *AgriLifeBookstore.org*

Educational programs of the Texas A&M AgriLife Extension Service are open to all people
without regard to race, color, sex, disability, religion, age, or national origin.

The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating.

Produced by Texas A&M AgriLife Communications