

## **TREE TRIMMING**

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(For assistance, please contact EHS at (402) 472-4925, or visit our web site at <http://ehs.unl.edu/>)

Tree trimming should be done under the direct supervision of an arborist or an experienced individual trained in the proper procedures for performing this work. Hazards commonly associated with tree trimming include falls, electrocution, sharp objects, and struck-by. This SOP provides guidance for reducing these hazards.

### ***Assess Site Hazards***

- Survey the job site to assess the hazards and controls needed before starting the job and continuously throughout the duration of the job.
- Note proximity to power lines, roads, buildings, machinery, etc.
- Do not attempt to trim or climb trees during inclement or windy weather.

### ***Assess Tree Hazards***

- Look for dead limbs or debris above or in nearby trees.
- Look for branches or vines interlocked with other trees.
- Inspect trees and limbs for structural weakness before climbing.
- Learn to recognize trees weakened by disease; and types of trees prone to cracking.
- Clear any obstructions so the top of the tree is visible.
- Determine the tree's predominant side lean.
- Assess the crown weight and location of the heaviest branches, to determine the potential fall direction.
- Plan the trimming cuts, worker's movements around the tree, and escape routes.
- Mark off the area around the tree and prevent access by the public.

### ***Protect Yourself While Working Around Power Lines***

- Assume all power lines are energized, and take appropriate precautions to avoid all contact until lines have been de-energized. Contact the power utility company before working on trees near power lines to implement additional safety measures (e.g., cutting off power to the lines and grounding them, or using insulating blankets on the power lines).
- Maintain a safe distance from the power line, depending on the voltage. The recommended distance ranges from two to fifteen feet, as shown in the OSHA table below.

OSHA [29 CFR 1910.268 (q) (2) (iv)] table.

Voltage range (phase to phase)(kilovolts)	Minimum working distance
2.1 to 15.0	2 ft. 0 in.
15.1 to 35.0	2 ft. 4 in.
35.1 to 46.0	2 ft. 6 in.
46.1 to 72.5	3 ft. 0 in.
72.6 to 121.0	3 ft. 4 in.
138.0 to 145.0	3 ft. 6 in.
161.0 to 169.0	3 ft. 8 in.
230.0 to 242.0	5 ft. 0 in.
345.0 to 362.0	7 ft. 0 in.
500.0 to 552.0	11 ft. 0 in.
700.0 to 765.0	15 ft. 0 in.

- Use non-conductive tools, materials, and PPE when there are power lines in the vicinity.
- Use a pull rope to prevent branches from falling toward power lines.
- Ensure that the cutting head of the pole pruner is connected to the lever at the lower end of the pole with a polypropylene rope. Do not use a wire or chain.
- Apply and maintain a coating of non-conductive wood preservative to help keep wooden pruner handles dry.
- Do not grasp the pruner closer than four feet from the metal head.

***Protect Yourself During the Task***

- Have a first aid kit readily available.
- Wear the appropriate personal protective equipment. At a minimum this will consist of safety glasses with side shields, leather gloves, steel-toed boots, and a forestry hard hat/face. A face shield, hearing protectors, and chaps should be worn while working with a chain saw.
- Assess the tree for branches under tension before cutting. Avoid being hit by standing away or on the opposite side of the direction of swing.
- Remove as many branches as possible from ground level.
- Manually break off small branches. Remove larger branches with proper tools.
- Attach a fiber or leather guard on saws that are held by a ring on the worker's belt.
- Do not leave partially sawn limbs on trees.
- Ensure employees operating mobile equipment such as aerial buckets have been properly trained.
- Work carefully to prevent cutting of ropes, lanyards, and safety belts or straps.

## **Chainsaws**

- Read, understand, and adhere to the manufacturer's operating instructions and precautions.
- Fuel the chain saw at least 10 feet (3 m) from any open flame or other source of ignition.
- Chain saws used by UNL employees must be equipped with a chain brake and a protective device that minimizes chain-saw kickback.
- Before using, check controls, chain tension, and all bolts and handles.
- Ensure secure footing, and to the extent feasible, remove trip hazards prior to operating.
- Make sure the chainsaw is firmly supported when starting and with the chain brake engaged. Never drop start a chain saw.
- Place a protective guard over chain when not in use.
- Inspect the limb/tree to be sawn for unsuspected hazards that could cause the saw to kick (e.g., nails, spikes, etc.).
- Be alert to and avoid using the saw in a manner that may result in binding.
- Shut-off the saw when moving from one location to another.
- Keep the chain sharp and lubricated.
- In most circumstances the chain saw must be operated with the thumbs and fingers of both hands encircling the handles.
- Do not use a chain saw to cut directly overhead.