



Kansas LTAP Fact Sheet

A Service of The University of Kansas Transportation Center for Road & Bridge Agencies

When it Comes to Mowing, Be Safe Out There

By Lisa Harris

Mowing controls vegetation on rights-of-way and is very important to roadway safety. It keeps an area clear beyond the road shoulders for better driver sight distance. Mowing also maintains the visibility of post-mounted delineators and hazard markers that high grass can obscure. More-labor-intensive trimming may be needed to supplement mowing in places mowers can't reach, such as the grass immediately around delineators and markers.

Trimming branches and working with adjacent landowners to control roadside vegetation also help maintain driver sight distance. These, along with a consistent mowing program vegetation from obscuring driveways, intersections, and even curves in the road from the driver.

Traffic control for mowing

Mowing is a moving operation that takes place on and off the roadway, and therefore it requires different traffic control than other maintenance operations. The most important thing to remember is to make the mower unit highly visible to drivers. That

way drivers will be alert to you and be able to avoid any potential collisions.

Warning signs such as MOWING AHEAD, ROAD WORK AHEAD, and similar signs may be placed along the road. The MOWING AHEAD sign is preferred. The sign is to be used in advance of mowing operations on the right of way. Place it on the shoulder so the approaching driver can read the message easily. As work progresses, move the signs so they are one to two miles between the sign



Image from Thurston County, WA

Using a boom attachment allows the mowing unit to stay upright on a flat surface while mowing a slope.



Make the Mower Visible

Be sure to:

- Operate rotating yellow beacons on mower tractors.
- Install slow-moving-vehicle signs on all mower tractors.
- Install yellow flasher lights on roll bars or the top of tractor cabs and operate these at all times.
- Install an orange flag or pennant on a whip to show the location of the tractor in high grass or over the edge of slopes.
- Operate the tractor with headlights on at all times.

Why Mow?

Road and street maintenance workers do three general types of mowing. In order of importance, these include:

Safety mowing. Makes sure signs and other traffic control devices, guardrails, and other safety features can be seen. Provides good sight distance for drivers approaching intersections, driving along curves, and approaching interchanges.

Transition mowing. Makes a smooth change from a narrow mowed width to a wide mowed width when different widths of right-of-way are mowed.

Contour or selective mowing. Makes a natural blending of the maintained roadside with native or planted growth. Shows off landscaping or wildflower areas or dresses up an interchange entrance to an urban area.



and the actual mowing work.

Mount the sign on a sturdy portable support that will not be knocked over or blown down easily. Cover or remove the sign during the lunch break or any other times when work is not in progress. Do not cover or remove the signs if you have stopped mowing to repair or adjust equipment; the warning to drivers is important as they pass by your equipment.

For more information

Kansas LTAP has free resources on mowing in its lending library, including training on DVD. Go to <http://www.ksltap.org>, click on the Lending Library, and search for “mowing” in the key words section.

We found a good, detailed handbook on mowing from the Nebraska Department of Roads. Turn to page 14 to learn more.

Finally, check out the mowing “do’s and don’ts” on the following page. They contain basic and practical advice for being safe out there. ■

Reprinted from the Spring 2013 issue of the *Kansas LTAP Newsletter*, a publication of the Kansas Local Technical Assistance Program (LTAP) at the Kansas University Transportation Center.



Sources:

- Vegetation Control for Safety: A Guide for Highway and Street Maintenance Personnel. 2008 revision. Federal Highway Administration Office of Safety. http://safety.fhwa.dot.gov/local_rural/training/fhwasa07018/vegetationfv1108.pdf.
- Roadside Mowing Safety Tips. 1991. Pennsylvania Local Roads Program. ftp://ftp.dot.state.pa.us/public/pdf/BPR_PDF_FILES/Documents/LTAP/TechSheets/TS_46.pdf
- Dauber, Greg. Mowing for Safety, Safely. Tech Transfer Newsletter. Summer 2008. California Institute of Transportation Studies. <http://www.techtransfer.berkeley.edu/newsletter/08-3/mowing-for-safety-safely.php>
- Northcutt, Paul. Mowing Tips for Roadsides. Lone Star Roads. 2009. Texas LTAP. http://www.teex.org/eu/documents/02_07-09.pdf



DON'T

- Mow too often. This wastes money, exposes mowing crews to traffic hazards more than needed, and can damage the vegetation.
- Mow at the wrong time. Good timing reduces the frequency of mowing required by cutting the vegetation in the right stage of growth.
- Mow too short. Leaving the proper height helps maintain the stand of vegetation and keeps small litter objects hidden. [A good guide for mowing frequency and height is the *Best Practices Handbook on Roadside Vegetation Management* by the Minnesota Local Road Research Board at <http://www.lrrb.org/media/reports/200019.pdf>.]
- Mow steep slopes if you don't need to. Steep slope operations increase risk of mower accidents.
- Mow when wet. This is hard on equipment.
- Operate equipment carelessly and scar trees and shrubs. Mowing is tedious but care must be taken to avoid accidents and preserve valuable plantings.



DO

- Read the operator's manual thoroughly.
- Protect yourself from the sun. Use the canopy on the mower. Wear sun screen and a hat and shirt.
- Consider using MOWING AHEAD or MOWING AREA signs or signs with similar legends to warn traffic, especially in hilly areas or on roads with heavy traffic. Signs should not be more than one to two miles ahead of the mowing.
- Before you mow, visually inspect the area. Watch for washouts and debris that could be thrown.
- Use flashing lights and Slow-Moving-Vehicle emblems and road signal to alert traffic.
- Strip grass from around the tree, in a circle, to help avoid mower wounds that can kill trees. The radius of the circle should be 1 to 3 feet depending on the size of the tree. Remove low tree branches that can clip an eye or throw the operator off balance.
- Leave room for a mower between trees and other structures .
- Ballast or weight the tractor properly. This is especially important when mowing on a hillside or when using a boom mower.
- Mow slopes steeper than 1:2.5 (vertical:horizontal) with a side-mounted mower on a boom .
- Operate side-mounted or boom mower units on the uphill side of the tractor to limit the possibility of overturning the tractor.
- Be sure the mower has a roll-over protection structure (ROPS). Use the seat belt at all times.
- Replace broken or lost chain guards to deflect debris immediately. Using flail type mowers reduces the amount of debris thrown.
- Cover all V-belts, drive chains and power takeoff shafts.
- Raise mowers when crossing driveways or roadways.
- Shut off power before checking any mower unit.
- Block a mower before changing, sharpening or replacing a blade. Any blade being re-installed should be checked for cracks or damage that will lead to failure.
- Check for leaks before leaving the shop.
- Refuel away from waterways.
- Keep spill kits/materials on hand in case of oil or fuel leaks in field.

Image from Arme Arundale County, MD

Withhold mowing during drought conditions. *Mowing is part of a roadside maintenance plan to increase safety on the roadway while retaining vegetation to control runoff and ruts. Mowing during a drought can damage your desirable roadside vegetation. Plants are stimulated to grow when they are mowed, and if they don't have water for growing, the plants will be stressed. If you mow during an extended drought, you may lose a lot of desirable plants.*