Equipment with Cutter Bars or Blades

Objective: Use safe procedures to work with and unclog machinery with cutter bars or blades.

How to Use This Module

Safety must always be the first priority for machinery with cutter bars or blades. For this module:

• This session will be conducted in the shop or field.
• Ask your supervisor to have equipment available to show the proper way to disengage and unclog cutters.
• Review the information below on service and maintenance needs.
• Review the important points.
• Take the True/False quiz to check your learning.

Background

Equipment with cutter bars or blades includes sickle cutter bars, rotary disk cutting blades, and hand-held powered cutting devices. When using cutting equipment, the operator should be familiar with the mechanisms and safety precautions.

Working with Cutter Bars and Blades

• Keep hands and feet away from the cutter bar or blade when the machine is running. Shut off the power before unclogging, servicing, or moving the machine.
• Mowers with rotating disks can throw objects. Do not operate when bystanders are near. Thrown objects can cause serious injury.
• Use the mower safety curtain or cover when operating the cutter bar or blades. Safety curtains prevent objects from being thrown by the rotating disks.
• Safety curtains may not catch all flying objects. Use personal protection equipment (PPE) to prevent injury from anything thrown — personal eye protection, protective gloves, and hard hats. (For more details, see the Tailgate Safety Training modules Personal Eye Protection, Protective Gloves, and Protecting the Head.)
• Tractors with cabs offer additional protection from thrown objects.
• Keep knives and fastening hardware in good condition. This prevents knives from being thrown from the machine. Consult the operator’s manual for directions.
Follow These Steps to Safely Unclog the Cutter Bar or Blade and Remove Debris

- Stop and disengage the power-take-off (PTO) or drive clutch.
- Raise the cutting and mowing device and back up.
- Move the machine clear of the accumulated debris.
- Shut off the engine. With the parking brake engaged, shift the transmission into park or neutral.
- Pull the clogged debris away from the cutter bar or blade.
- Check the cutter bar or blade for broken or damaged parts.
- Return safety curtain or cover to the proper operating position.
- Start the engine. Engage the PTO at low speed. Then increase it to the rated speed.

Knives and rotating disks on cutter bars and blades can cause severe injury if used improperly. Rocks or other debris thrown by rotating disks, blades, and knives can injure the operator or bystanders. Follow all safety precautions.

Review These Important Points

- Always disengage the PTO before attempting to service any cutting device.
- Use and maintain all machine shields and covers.
- Use personal eye protection as added protection.
- When pulling debris out of cutter bars or blades, pull away from the knives.

About These Modules

The author team for the training modules in the landscape and horticultural tailgate training series includes Dee Jepsen, Program Director, Agricultural Safety and Health, Ohio State University Extension; Michael Wonacott, Research Specialist, Vocational Education; Peter Ling, Greenhouse Specialist; and Thomas Bean, Agricultural Safety Specialist. Modules were developed with funding from the Occupational Safety and Health Administration, U.S. Department of Labor, Grant Number 46E3-HT09.

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Answer Key: 1 = T, 2 = T, 3 = F, 4 = F, 5 = T.
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Name____________________________________

True or False?

1. Cutter bar or blade knives and rotating disks can severely injure people and animals. T F
2. When pulling debris out of cutter bars or blades, always pull debris away from the knives. T F
3. There is no need to disengage the PTO before servicing a cutter bar or blade. T F
4. Shields that are lost or broken do not need to be replaced. T F
5. A tractor with a cab is the best way to avoid injury from objects thrown by machinery with cutter bars or blades. T F