



# Tailgate Safety Training for Landscaping and Horticultural Services

Agricultural Safety Program, 590 Woody Hayes Drive, Columbus, OH 43210

## Overhead Electrical Hazards

**Objective: Prevent contact with overhead power lines.**

### *How to Use This Module*

Overhead power lines are a constant danger in any outdoor work. For this module:

- Read the information below on the hazards of overhead electrical lines and how to avoid them.
- Discuss accidents involving overhead electrical lines with your supervisor or other workers.
- Review the important points.
- Take the True/False quiz to check your learning.

### Background

Long, tall, or large equipment can come in contact with overhead power lines:

- Ladders
- Long-handled trim saws
- Portable elevators
- Augers
- Irrigation pipes
- Dump trucks

When equipment contacts power lines, workers can be electrocuted and badly injured, even killed. Irrigation pipes and other machinery only need to be near an overhead power line to kill.

### Check the Location of Overhead Power Lines

- Pulling or installing pump casing and pipe.
- Raising or lowering machines.
- Moving irrigation pipes.
- Raising or moving ladders.
- Pruning trees from the ground.

- Working in trees.
- Constructing buildings.
- Performing building maintenance.

## Remember These Cautions

- Always look up for overhead hazards like power lines, especially high-voltage lines.
- Always assume that overhead power lines don't have protective insulation, so any contact is dangerous.
- Work as a team. One worker on the ground should be on the lookout for possible contact between equipment and power lines.
- Nonmetallic materials can conduct electricity. These are lumber, tree limbs, tires, and ropes.
- Electricity seeks one or more paths of least resistance. This includes going through people.
- Do not touch power lines.
- Untrained workers must stay at least 10 feet away from unguarded equipment.
- Never store anything under power lines — no equipment, no tools, no vehicles, no materials, nothing.
- Stay away from fallen overhead wires. Notify the power company right away.
- Ladders should not be used near overhead power lines.
- Plan a travel route for equipment that avoids overhead power lines.
- The ground level should not be raised under overhead power lines.

## If You Are in a Vehicle That Comes into Contact With a Power Line

- Most important, stay in the vehicle or in the boom or crane. Do not try to get out unless the vehicle is on fire.
- If you can, disconnect from the power line. Back the vehicle or swing the boom or crane away from the power line.
- Get help from the power company — use your cell phone to call or yell to others nearby. Make sure no one else approaches the vehicle.
- Do not leave the vehicle until the power company tells you the line is de-energized. You can never know for sure if the line is going to come back on or not.
- If the vehicle catches on fire, exit the vehicle very carefully:
  - ◆ Jump out of the vehicle. Don't worry about how far you jump, as long as you clear the vehicle.
  - ◆ Be sure to land on both feet and keep your balance when you land. Those are more important than how far you away you jump.
  - ◆ Don't touch anything with your hands; use your hands for balance only.
  - ◆ Keep both feet on the ground at all times. Hop away from the vehicle — be sure to keep both feet together. Use your hands for balance only.
  - ◆ If you cannot hop, shuffle away — and keep both feet on the ground at all times. Do not lift one foot off the ground to step forward. Instead, drag one foot forward keeping it in touch with the ground.
  - ◆ Keep hopping or shuffling away until you get to where other people are standing safely.

## Review These Important Points

- Assume overhead power lines have no protective insulation and contact may be fatal.
- Work as a team. One worker on the ground spots for the worker on raised equipment.
- Electricity always seeks one or more paths of least resistance.
- Never touch fallen overhead wires. Notify the power company right away.
- Workers should check for overhead power lines before doing any work.
- Plan your route of travel to avoid power lines.

## 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 = F, 3 = T, 4 = T, 5 = T.

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*Name* \_\_\_\_\_

### True or False?

- |  |   |   |
|--|---|---|
| 1. Never touch power lines.  | T | F |
| 2. Nonmetallic materials do not conduct electricity. These are lumber, tree limbs, tires, and ropes.     | T | F |
| 3. Irrigation pipes and other machinery do not need to touch an overhead power line for it to be lethal. | T | F |
| 4. Notify the power company right away should a problem or concern arise.                                | T | F |
| 5. Electricity seeks one or more paths of least resistance.  | T | F |