Proper Use of Ladders for Trainers and Supervisors

Objective: Use ladders safely for construction and maintenance jobs.

**Trainer’s Note**

Accidents can happen when someone falls from a ladder or uses it wrong. For this module:

- Present the information below on ladders and safe ladder practices.
- Demonstrate ladder hazards and ladder safety.
- Have workers practice using the Four-to-One rule while you observe.
- Review the important points.
- Have workers take the True/False quiz to check their learning.

**Background**

Most ladder accidents happen when someone falls from a ladder or when the ladder falls because it is being used incorrectly.

**Before Climbing a Ladder**

- Consider the type of work to be done when choosing a ladder.
- Be certain the ladder is able to carry the amount of weight that will be applied. Check ladder ratings for weight allowed.
  - **Industrial.** Heavy-duty with a load capacity of not more than 250 pounds.
  - **Commercial.** Medium-duty with a load capacity of not more than 225 pounds (suited for painting).
  - **Household.** Light-duty with a load capacity of 200 pounds.
- Check the condition of the ladder using the Ladder Inspection Checklist on the next page.
- Make sure the ladder is placed on a firm, level, slip-free surface away from things like algae growth, oil droplets, potting mix, or wet grass clippings.
- **Check for overhead power lines** outdoors and remain clear of them.
- Check for lighting fixtures indoors and remain clear of them.
### Ladder Inspection Checklist

<table>
<thead>
<tr>
<th>Metal Ladders</th>
<th>OK</th>
<th>Not OK</th>
<th>Wood Ladders</th>
<th>OK</th>
<th>Not OK</th>
<th>Fiberglass Ladders</th>
<th>OK</th>
<th>Not OK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharp edges?</td>
<td>Splits?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dents?</td>
<td>Cracks?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bent steps or stiles?</td>
<td>Chips?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condition of no-slip or slip-resistant rubber or plastic feet?</td>
<td>Loose steps or rungs?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrosion?</td>
<td>Warping?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Step Ladders
- Be certain the spreader is locked before climbing on the ladder.
- Never stand on the top of a stepladder.
- Note: The top is not a step!

### Extension and Straight Ladders
- Raise the extension ladder to the desired height and lock both sides.
- Never stand on the top three rungs of a straight or extension ladder.
- Don’t lean a ladder against a movable object.
- Always face the ladder and hold onto the side rails with both hands, when going up or down the ladder.

**Four-to-One Rule:**
For every 4 feet of rise, the base of the ladder should be 1 foot away from the object the ladder is resting against.
Proper Ladder Placement

The ladder should be placed according to the Four-to-One Rule. First, measure the rise of the ladder — the height from the ground up to the point where the ladder rests against the object. For every 4 feet of rise, the base of the ladder should be 1 foot away from the object. For example, if a 16-foot ladder leans against a wall, its base should be placed 4 feet from the wall. Keep ladders away from power lines.

Remember

• Never use a ladder in a strong wind unless it is tied securely.
• Never use a ladder in front of a door unless the door is locked, blocked, or guarded, and signs are posted.
• Inspect ladders for potential dangers before using.
• Keep your body centered between the rails of the ladder.
• Always have three points of contact while on a ladder — for example, two feet and one hand.
• Never carry tools or materials in your hand when going up or down a ladder. Use a tool belt or apron with a pocket.
• Only one person should be on a ladder at a time.
• If you must work near power lines, always use a wooden or fiberglass ladder. Never work with a metal ladder around power lines.

Review These Important Points

• Choose the right ladder for the intended job.
• Know the potential hazards when using a ladder.
• Know the proper placement of ladders.

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.

Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the U.S. Department of Agriculture or the U.S. Department of Labor.

<table>
<thead>
<tr>
<th>Answer Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

OSU Extension embraces human diversity and is committed to ensuring that all educational programs conducted by Ohio State University Extension are available to clientele on a nondiscriminatory basis without regard to race, color, age, gender identity or expression, disability, religion, sexual orientation, national origin, or veteran status.

Keith L. Smith, Associate Vice President for Agricultural Administration and Director, Ohio State University Extension
TDD No. 800-589-8292 (Ohio only) or 614-292-1868
Copyright © 2006, The Ohio State University
Proper Use of Ladders

Name____________________________________

True or False?

1. Stand on the top three rungs of a straight or extension ladder. T F

2. The Four-to-One Rule should be applied when leaning a ladder against an object. T F

3. Keep the body centered between the rails of the ladder. T F

4. It is a good idea to use a ladder in windy conditions. T F

5. A wood ladder is safe to use if it has cracks and splits, as long as it doesn’t have any missing rungs. T F