



Tailgate Safety Training for Landscaping and Horticultural Services

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

Protecting Against Cold for Trainers and Supervisors

Objective: Identify general tips to prevent the harmful effects of cold weather.

Trainer's Note

Landscaping and horticulture work often occurs in cold environments. For this module:

- Provide the Cold Stress Card from the Occupational Safety and Health Administration (OSHA) web site, if possible.
- Review the information in the module.
- Ask workers to give signs of harmful effects of cold.
- Review the important points.
- Have workers take the True/False test to check their learning.

Background

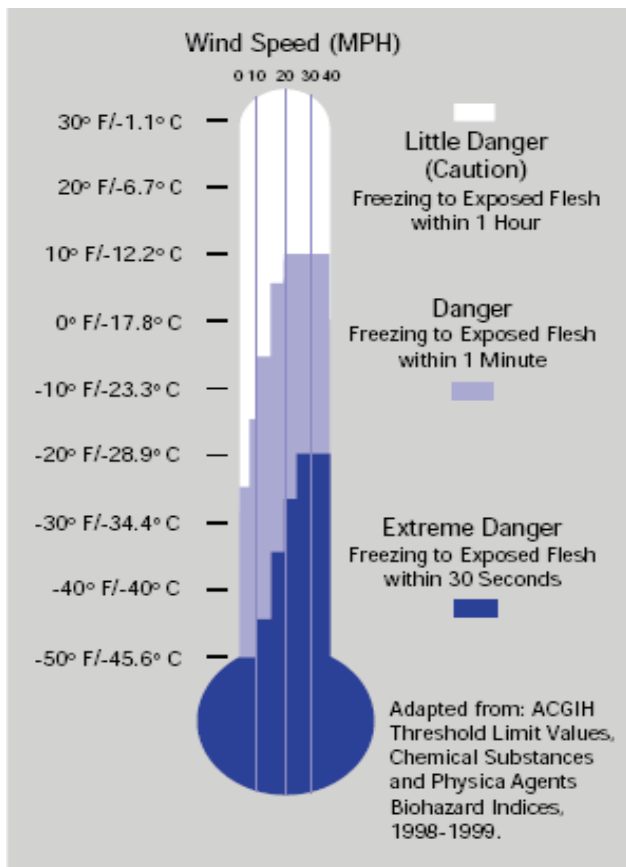
Working in a cold environment, outdoors or indoors, can be risky. Cold environments can include low temperatures, high winds, dampness, and cold water. Workers need to pay extra attention to working in cold environments to avoid cold-related injuries.

Body Temperature in Cold Environments

Working in cold weather can cause cold-related injuries. Keeping normal body temperature of 98.6°F (37°C) in a cold environment is very important. Workers can lose body heat in different ways:

- Convection: working in brisk winds.
- Conduction: using cold hand tools or wearing wet clothing.
- Radiation: working in shady or cloudy, overcast environments.
- Sweating.

The illustration from OSHA's Cold Stress Equation (see the following page) shows the degree of danger based on the temperature and wind speed.



General Tips to Prevent Harmful Effects of Cold

- Wear adequate, dry clothing to decrease the effects of cold on the body.
- Do not take drugs like nicotine or caffeine that inhibit the body's reaction to the cold.
- Be aware of work environments that could lead to potential cold-induced injuries.
- Learn the signs of cold-induced injuries and what to do to help workers.
- Wear proper clothing for cold conditions. Layer clothing to adjust to changing environmental temperatures. Wear a hat and gloves. Also, wear polypropylene underwear to keep water away from the skin.
- Take frequent short breaks in warm, dry shelters to warm up the body.
- Try to schedule work for the warmest part of the day.
- Avoid fatigue because energy is needed to keep muscles warm.
- Use the buddy system — work in pairs so that one worker can recognize danger signs.
- Avoid drinks with alcohol or caffeine such as coffee, tea, sodas, or hot chocolate.
- Drink warm, sweet beverages such as sugar water or sports-type drinks.
- Eat high-calorie foods such as hot pasta dishes.

Review These Important Points

- Workers can lose body heat through convection, conduction, radiation, and sweating.
- Do not take certain drugs or medications such as nicotine, caffeine, and medication that inhibits the body's reaction to the cold or impairs judgment.
- Avoid exhaustion or fatigue because energy is needed to keep muscles warm.

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.

Answer Key	
1	F
2	T
3	F
4	F
5	T

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EXTENSION

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Protecting Against Cold

Name _____

True or False?

- | | | |
|---|---|---|
| 1. Working in -30°F (-34.4°C) is not dangerous. | T | F |
| 2. Normal body temperature is 98.6°F (37°C). | T | F |
| 3. Drinking hot chocolate is good when working in a cold environment. | T | F |
| 4. Drinking alcohol helps prevent the harmful effects of cold. | T | F |
| 5. Take frequent short breaks in warm, dry shelters to allow the body to warm up. | T | F |