



Tailgate Safety Training for Landscaping and Horticultural Services

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

Spraying Paint

Objective: Observe needed safety precautions when spraying paint.

How to Use This Module

Spraying paint exposes workers to hazardous vapors. For this module:

- Review the information below on safety precautions for spraying paint in a spray booth, outdoors, and indoors and on how to clean spray guns.
- Discuss specific company safety practices for spraying paint with your supervisor.
- Review the important points.
- Take the True/False quiz to check your learning.

For more details on respirators, refer to the Tailgate Safety Training modules *Respirator Fit* and *Cleaning and Storing Respirators*.

Background

Landscaping and horticultural services workers may spray paint while performing building and equipment maintenance. Unfortunately, spraying paint produces hazardous vapors. Workers must take safety precautions to minimize their exposure to those vapors.

Wearing a face respirator while spraying paint is one way to reduce exposure to vapors. A face respirator can be full-face or half-face. Each respirator must be fit-tested. After use, respirators must be properly cleaned and stored. For more details, refer to the Tailgate Safety Training modules *Respirator Fit* and *Cleaning and Storing Respirators*.

Spraying Paint in Spray Booths

Spraying in a booth cuts down on exposure to those vapors. It also reduces the chance of a fire or explosion. In a spray booth, fresh air must move from the worker past the paint gun and painted product toward the exhaust outlet. The air movement in the booth moves vapors out of the booth, reducing worker exposure to vapors. An exhaust outlet with a fan usually produces the required air movement — as long as workers remember to turn the fan on.

Spray booth filters must be changed regularly, as described in the owner's manual. In the spray booth, workers must wear an appropriate full-face or half-face respirator. In some cases, workers may need a battery-powered respirator helmet fed by an air supply line for adequate protection.

Paint spray booth operators must obtain a permit from the local air district or from the Environmental Protection Agency (EPA). High-velocity, low-pressure (HVLP) paint spray guns may be required.

Spraying Paint Outdoors

If a paint booth is not available, workers can spray paint outdoors without a spray booth. This also reduces exposure to solvent vapors. Arrange the work so that the wind is blowing on the worker's back. This way, the wind will blow past the worker, past the spray gun and painted product, and carry the vapors away from the worker.

Spraying Paint Indoors

Sometimes you have to spray paint inside a structure. Air must flow past the worker, past the spray gun and painted product, and out an open window or door. Usually, a fan blowing outward at a window or door works best.

In greenhouses, standard ventilation recirculates indoor air. If a worker sprays paint with normal ventilation, the indoor air full of hazardous vapors would come back to the worker again. So it's especially important to open a door or window and blow air out the opening to carry vapors outside, away from the worker.

Spray Gun Cleaning

Soak spray guns in a closed and sealed container. Use acetone as the cleaning solvent to avoid or minimize environmental requirements. Never pour paints or cleaning solvents down a drain. Paints and cleaning solvents are hazardous waste. Follow state and federal regulations to dispose of them. Often, it is cheaper and easier to find another use for the paint. For example, many outdoor surfaces can use another coat of paint. Another coat of paint provides more protection from the weather. You can allow empty paint cans to air-dry. Then, you can dispose of them as solid waste.

Commonly Overlooked Safety Precautions

- Heat causes vapors to evaporate faster. So, heat sources can be dangerous around paint. If possible, adjust work schedules in hot climates. Schedule paint spraying for cooler times of the day.
- Paint vapors can be explosive. Do not use electrical extension cords in or around spray booths.
- Remove or repair any object that could produce a spark in the painting area.
- Cover exposed light bulbs.
- Install non-sparking switches in hazardous locations.
- Wear protective clothing and equipment. Use respirators, eye protection, gloves, overalls, and boots.
- Wash face, hands, and arms thoroughly after each painting session.

Review These Important Points

- Use ventilated booths if available. Otherwise, paint outdoors in open spaces.
- Wear proper protective clothing.
- Use a fit-tested respirator.
- Do not use any electrical extension cords in or near the paint booth.

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 = T, 4 = F, 5 = F.

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Name _____

True or False?

1. Avoid sparks or electric arcs in or around paint spray booths. T F
2. Use a spray booth if available. If not, spray outdoors in open, well-ventilated areas with the air moving paint vapors away from the worker. T F
3. In some cases, you may need a battery-powered respirator fed by an air supply line. T F
4. In greenhouses, standard recirculating ventilation is safe for spraying paint. T F
5. There is no need to worry about heat when spray painting. It poses no danger. T F