



Fighting farmland and rangeland wildfires

*A reference for employers
engaged in Oregon OSHA's
Agriculture (Division 4) Activities*



DCBS

Consumer and
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Oregon OSHA

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440-5443 (7/19/COM)

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Farmland and rangeland wildfires can destroy thousands of acres of land and threaten the lives of farmers and ranchers working to save their livelihood and the livelihood of their community. These types of fires can quickly grow due to strong winds and dry conditions.



Because of this constant threat during fire season, many farmers and ranchers have equipment that was either manufactured or repurposed for fire suppression. There are various types of fire suppression equipment, each having its own use and limitations. Equipment can range from a portable fire extinguisher stored in a pickup truck to fire gear that was retired from a fire service agency. Farmers commonly use a truck with a 200+ gallon water tank and pump for fire suppression.

Since this equipment is typically part of farming and ranching operations, farmers often keep fire suppression equipment on standby during agriculture activities such as combining, swathing, cutting, and haying operations – essentially any tasks where there is a potential for a fire to start. Farmers also use mobile fire suppression equipment for the initial response to fire caused by lightning and humans. The purpose of this equipment is not necessarily for fighting large fires, but rather to quickly extinguish small fires before they grow beyond the initial stage.

You and your employees may use other methods to help control the spread of fires, including removing fuels from the fire's path or establishing a fire line when conditions and terrain allow such methods to be safely used. You can accomplish this with hand tools, bulldozers, or dragging farming implements behind tractors. Whichever methods you use, it is important to first determine all possible fire paths based on fuel type, terrain, and weather conditions, which can all dramatically affect fire behavior. You must constantly watch for spot fires and changes in the speed and direction of the fire. You should do this well ahead of the fire's path in order to prevent those combating the fire from being overtaken or cutoff from pre-established escape routes.



Incipient stage fires

Oregon OSHA generally describes a [small or incipient stage fire](#) as a fire that is in the beginning stage and can be controlled or extinguished by portable fire extinguishers, Class II standpipe, or small hose systems. You can manage this kind of fire without traditional protective clothing or breathing apparatus.

Develop a plan. You can designate and train your employees to fight fires, but you must make it clear to employees on the types of fires they are authorized to fight, and ensure they receive the appropriate training. For small stage fires, make sure your employees have the following:

- Training to safely use fire extinguishers
- Understanding of the limitations of fire extinguishers
- Knowledge of the hazards associated with fighting small or incipient stage fires

As a general rule, an incipient stage fire can be extinguished with no more than two standard fire extinguishers. For fires that have grown beyond the incipient stage, activate the next phase of your emergency action plan.

Fires beyond incipient stage

If your employees are unable to extinguish or control a small stage fire then they should leave the area and immediately report the fire, following the procedure in your emergency action plan. If they continue to fight a wildland fire beyond its beginning stage (as pre-determined in your plan), you can help keep your employees safe by ensuring they have the following:

- Proper training in the elements of wildland firefighting
- Correct personal protective equipment
- Appropriate tools and equipment

Because wildfires can be fast-moving and unpredictable, it is critical that farmers, ranchers, and their employees know exactly how to respond when their property is threatened. Here are a few things you can do now to help keep everyone safe.

- Prepare a fire prevention plan and an emergency action plan
- Determine what personal protective equipment employees need to fight fires
- Ensure that employees are properly trained, which can include:
 - Basic fire behavior
 - Basic fire control
 - Basic fire line safety
- Have properly maintained firefighting equipment readily available
- Ensure reliable communications are made available and used
- Ensure that employees know when to fight – and flee – a fire

Prepare a fire prevention plan and an emergency action plan

The fire prevention plan

You must have a fire prevention plan that includes:

- Procedures that identify and anticipate hazardous fire conditions such as fuel loads, weather, and terrain. Refer to the commonly referenced "[18 Watch Out Situations.](#)"
- Procedures for regular maintenance of safeguards on heat-producing equipment to reduce accidental startup of combustible materials.
- Procedures that account for and maintain the appropriate fire extinguishing equipment, which includes proper training to safely and efficiently operate the equipment.
- Procedures for reporting fires.
- Procedures for predetermining an escape route or safety zone in the immediate work area.

You must review your fire prevention plan before assigning work and annually thereafter with all your employees. You must also inform them of the fire hazards in their work areas, which can include temperature, wind speed, fuels, and humidity. Establish criteria to terminate work based on these factors.

If the fire reaches the level to involve professional fire agencies or professional firefighters, you should establish communication with them and follow their direction.



18 Watch Out Situations

- 1** Fire not scouted and sized up.
- 2** In country not seen in daylight.
- 3** Safety zones and escape routes not identified.
- 4** Unfamiliar with weather and local factors influencing fire behavior.
- 5** Uninformed on strategy, tactics, and hazards.
- 6** Instructions and assignments not clear.
- 7** No communication link with crew members or supervisor.
- 8** Constructing line without safe anchor point.
- 9** Building fireline downhill with fire below.
- 10** Attempting frontal assault on fire.
- 11** Unburned fuel between you and fire.
- 12** Cannot see main fire; not in contact with someone who can.
- 13** On a hillside where rolling material can ignite fuel below.
- 14** Weather becoming hotter and drier.
- 15** Wind increases and/or changes direction.
- 16** Getting frequent spot fires across line.
- 17** Terrain and fuels make escape to safety zones difficult.
- 18** Taking a nap near fireline.



The emergency action plan

Your emergency action plan must include:

- Procedures for reporting a fire or other emergency
- Procedures for emergency evacuation to an established safe zone and safe shut down of critical equipment
- Rescue procedures and medical duties
- Names or job titles of employees to contact for information about the plan

Review the emergency action plan with employees:

- When the employees are new, annually thereafter
- When the employee's responsibilities under the plan change
- When the plan changes

You must also have a communication system to alert employees of an emergency or an employee alarm system with a predetermined signal.



Download a sample emergency action plan here.

<https://osha.oregon.gov/oshapubs/pubform/emergency-action-plan.pdf>

Conduct a personal protective equipment hazard assessment

A personal protective equipment (PPE) hazard assessment is an evaluation of your workplace that helps you determine what hazards your employees are exposed to, or anticipated to be exposed to, and what PPE they need to protect themselves. A PPE hazard assessment should include:

- The jobs (or tasks) that your employees do
- The hazards your employees are exposed to
- Where the hazards are located
- The likelihood that those hazards could injure your employees
- The severity of a potential injury
- The types of PPE necessary to protect your employees from those hazards

Determine if your workplace has hazards that you cannot eliminate or control without PPE. If there are such hazards, you must:

- Select and ensure that exposed employees use the types of PPE that will protect them from the hazards identified in the hazard assessment
- Communicate PPE selection decisions to each exposed employee
- Select PPE that properly fits each exposed employee



Download a sample PPE hazard assessment plan here.

<https://osha.oregon.gov/oshapubs/pubform/ppe-hazard-assessment-form.pdf>

When fighting fires other than incipient fires, employees should wear:

- **Pants and a long-sleeved shirt** made of cotton, wool, denim, or other natural-fiber, or clothing made from fire-resistant materials.
 - Clothing made from common permanent-press materials or synthetic fibers that melt when exposed to flame or heat must not be worn.
 - When you require special protective clothing made of aramid or other fire-resistant materials, you must provide it at no cost to your employees.
- **Footwear** that covers and provides protection and support for the foot and ankle, such as heavy-duty leather lace-up boots with an 8-inch high top. The footwear should:
 - Provide for secure footing and traction for the assigned task
 - Be fire resistant and not melt
 - Be made of or covered with cut-resistant material when employees operate chain saws
- **Head protection** in accordance with the American National Standard for Industrial Head Protection (ANSI Z89.1-2003). You must replace, at no cost to the employee, head protection that is no longer serviceable due to reasonable wear and tear.
- **Eye and face protection**
- **Hand protection** such as leather gloves
- **Leg protection (chaps)** when employees operate chainsaws
- **Hearing protection** when employees operate powered equipment, such as chainsaws



Payment for protective equipment. With the exception of pants, a long-sleeved shirt, and footwear, you must provide, at no cost to your employees, the personal protective equipment they need to do their jobs.

Training your employees. You must train your employees how to wear, use, and maintain their PPE before they use it the first time. Training must also include the types of PPE that are necessary and the limitations of the PPE.

Ensure that your employees who fight fires have appropriate training and equipment

If you expect your employees to fight fires, you must ensure that they have the appropriate level of training and the necessary equipment. The level of training and the equipment your employees need depend on the types of fires you expect them to fight. Train employees appropriately for the tasks they are assigned; the following topics are a few examples:

- Basic fire behavior
- Basic fire control
- Basic fire line safety

You must maintain and inspect the firefighting equipment that your employees use. It is best to conduct these inspections on an annual basis, ideally before fire season begins and as needed.

With the exception of pants, a long-sleeved shirt, and footwear, you must provide, at no cost to your employees, the protective clothing they need to fight fires.

Small fires and wildfires – fight or flee?

You can choose to designate employees to fight incipient stage fires after they have been trained how to use fire extinguishers, understand the limitations of fire extinguishers, and know the hazards associated with fighting incipient stage fires. Alternatively, you may instruct them to follow your emergency action plan and immediately report the fire, and leave the area.

Oregon OSHA Services

Oregon OSHA offers a wide variety of safety and health services to employers and employees:

Enforcement

▶ **503-378-3272; 800-922-2689;**

enforce.web@oregon.gov

- Offers pre-job conferences for mobile employers in industries such as logging and construction.
- Inspects places of employment for occupational safety and health hazards and investigates workplace complaints and accidents.
- Provides abatement assistance to employers who have received citations and provides compliance and technical assistance by phone.

Consultative Services

▶ **503-378-3272; 800-922-2689;**

consult.web@oregon.gov

- Offers no-cost, on-site safety and health assistance to help Oregon employers recognize and correct workplace safety and health problems.
- Provides consultations in the areas of safety, industrial hygiene, ergonomics, occupational safety and health programs, assistance to new businesses, the Safety and Health Achievement Recognition Program (SHARP), and the Voluntary Protection Program (VPP).

Oregon OSHA Services

Standards and Technical Resources

▶ **503-378-3272; 800-922-2689;**

tech.web@oregon.gov

- Develops, interprets, and gives technical advice on Oregon OSHA's safety and health rules.
- Publishes safe-practices guides, pamphlets, and other materials for employers and employees.
- Manages the Oregon OSHA Resource Center, which offers safety videos, books, periodicals, and research assistance for employers and employees.

Appeals

▶ **503-947-7426; 800-922-2689;**

admin.web@oregon.gov

- Provides the opportunity for employers to hold informal meetings with Oregon OSHA on concerns about workplace safety and health.
- Discusses Oregon OSHA's requirements and clarifies workplace safety or health violations.
- Discusses abatement dates and negotiates settlement agreements to resolve disputed citations.

Oregon OSHA Services

Conferences

- ▶ **503-378-3272; 888-292-5247, Option 1;**
oregon.conferences@oregon.gov
- Co-hosts conferences throughout Oregon that enable employees and employers to learn and share ideas with local and nationally recognized safety and health professionals.

Public Education

- ▶ **503-947-7443; 888-292-5247, Option 2;**
ed.web@oregon.gov
- Provides workshops and materials covering management of basic safety and health programs, safety committees, accident investigation, technical topics, and job safety analysis.

Want to know more?

Oregon OSHA has offices across Oregon. If you have questions or need information, call the office near you or 800-922-2689 (toll-free).

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