



Maine Farm Safety Program

by Dawna L. Cyr, farm safety project assistant, and Steven B. Johnson, Ph.D., Extension crops specialist

Fires: Detection and Equipment to Fight Them

Fires are devastating. Buildings, equipment, animals, and sometimes lives are lost. Avoid fires by preventing them. Unfortunately, fires do happen. Should a fire arise on your farm, being equipped to fight it may lessen the damage before the local fire department arrives.

Fire Detection Equipment and Warning Systems

Today, a variety of fire detection and warning systems exist. There are two main types of fire detection equipment: heat sensors or detectors, and smoke detectors. Heat sensors are relatively expensive and used primarily to trigger sprinkler systems. They provide a short warning period. Smoke sensors or detectors have become very popular in recent years because of their reliability and low cost. They also provide an early warning. Smoke detectors also can be connected by means of a remote system to a central

point. A smoke detector should have a "UL" or "FM" label, which means they have been safety tested and approved. Remember to test the detector monthly and replace batteries yearly or as recommended by the manufacturer.

Fires: Detection and Equipment to Fight Them

- **Strategically locate ABC rated fire extinguishers throughout work sites.**
- **Install a smoke detector and test it regularly.**

Classes of Fire

The material that burns in fires varies greatly. Similarly, the equipment used to extinguish fires varies. To properly identify different fire types, a method of classifying fire exists. Fire classifications will determine what type of agent should be used to most effectively and safely extinguish the fire.

Class A Fire—ordinary combustibles, wood, paper, textiles, etc.

Class B Fire—flammable liquids, gasoline, oils, fats, etc.

Class C Fire—live electrical wiring, motors, appliances, etc.

Class D Fire—combustible metals, magnesium, potassium, etc.

Fire-Fighting Equipment

Fire-fighting equipment is used to help fight fires, but does not necessarily extinguish them. There are several articles of fire-fighting equipment that can be used to put out a small fire or help stop a larger one from spreading.



A portable ladder long enough to reach the roof area of the highest building on the farm is an essential part of the home fire-fighting equipment. Axes and chain saws are useful for cutting down trees or opening wider firebreaks. Two pieces of equipment can be made for fighting woods and brush fires. The first, a fire rake, is good to have on hand. It consists of a six-foot wooden

pole attached to a piece of scrap iron that has four or five mower-sickle sections riveted to it in the form of a rake. The second is a fire swatter. Attach a two-foot piece of 12-inch belting to a long handle.

Fire Extinguishing Equipment

Fire extinguishing equipment helps put out fires and is either portable or fixed. Fixed equipment includes permanent fire hoses, overhead sprinkler systems and hydrants. For a number of reasons, portable extinguishers tend to be more practical for farm use. Portable fire extinguishing equipment is available in a variety of sizes and shapes. All portable extinguishing equipment is rated or classified for the class of fire it is capable of extinguishing. Choosing the right extinguisher for a fire is important if a fire is to be put out quickly and safely.

Have plenty of water available to fight fires. An accessible pond or water-holding tank will augment available water from your well and tank trucks.

Many fires cannot be classified strictly as one type. They may involve a variety of flammable materials. For this reason, multi-rated extinguishers have been developed.

Owing to the variety of work conditions that exist on the farm, farmers are advised to use an all-purpose, ABC rated extinguisher. This extinguisher uses a dry chemical agent and is capable of extinguishing Class A, B or C fires. The extinguisher is available in a variety of sizes and is not susceptible to temperature extremes. All portable extinguishing equipment should be strategically located on the farm and checked regularly. Everyone on the farm should be trained in the safe use of extinguishers.

For many years, carbon tetrachloride (CC14) was a common type of extinguishing agent. Research has shown that CC14 is not a safe extinguishing agent because when it comes in contact with heat, deadly chlorine gas is given off. All extinguishers using CC14 should be taken to the local fire department to be disposed.

Owing to the variety of work conditions that exist on the farm, farmers are advised to use an all-purpose, ABC rated extinguisher.



Maine Farm Safety Program

This Maine Farm Safety fact sheet is part of an educational fact sheet series produced by University of Maine Cooperative Extension. For more information on farm safety, contact your county Extension office. Information in this publication is provided purely for educational purposes.

© 2002, 2020

Call 800.287.0274 (in Maine), or 207.581.3188, for information on publications and program offerings from University of Maine Cooperative Extension, or visit extension.umaine.edu.

The University of Maine is an EEO/AA employer, and does not discriminate on the grounds of race, color, religion, sex, sexual orientation, transgender status, gender expression, national origin, citizenship status, age, disability, genetic information or veteran's status in employment, education, and all other programs and activities. The following person has been designated to handle inquiries regarding non-discrimination policies: Director of Equal Opportunity, 101 North Stevens Hall, University of Maine, Orono, ME 04469-5754, 207.581.1226, TTY 711 (Maine Relay System).