Selecting a Fire Extinguisher

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South Dakota State University

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Selecting a Fire Extinguisher

C. E. Stevens, Department of Agricultural Engineering
College of Agriculture

"Selecting a Fire Extinguisher" was originally prepared and published by the University of Missouri Extension Division as publication No. 1906. The information in this publication is also useful in South Dakota and is reprinted with permission to be used as a part of the Home User's Manual.

The only way to be sure that a fire extinguisher will meet your needs is to have one that has the approval of the Underwriters' Laboratories and/or Factory Mutual. If the extinguisher is approved by either of these it will carry one of the labels shown below. This is your guarantee of quality.

Underwriters' Laboratories, Inc.
Inspected
2.5 Gallon Hand Fire Extinguisher
Classification A-I No.

FACTORY MUTUAL

Many aerosol containers, plastic bottles, and other types of unapproved fire extinguishers, with less than a pint of liquid or 16 ozs. of dry power, give their owners a false sense of security. While they may put out a fire in a pie pan, they may be worthless on fires that are slightly larger, or they may not work at all.

CHECK THESE FEATURES

Farm fire extinguishers should:
1. Contain materials that won't freeze.
2. Have sufficient capacity and be proper type to control possible fires in the area where extinguisher is located.
3. Be a type which can be serviced either locally or on the farm.
4. Carry the label of approval of the Underwriters' Laboratories and/or Factory Mutual.

ESTABLISH A PRIORITY

The home is probably the most important place to have a fire extinguisher because home fires are more of a threat to lives as well as property. Home fires are most likely to occur in the kitchen (grease fires) or the heating system (possibly fuel fires). The best extinguishers for a location between these two places are either a dry chemical (a 2½ or 5 lb.-size), a carbon dioxide, or better yet, a 10 lb. general purpose dry chemical extinguisher. Some companies make a 2½ lb. or larger dry chemical extinguisher in which the empty shell is discarded after use. To recharge, a new shell is inserted.

The second priority extinguisher should probably be a 2½ gal. or larger, anti-freeze, or a 10 lb. or larger, general purpose dry chemical type for some central location in the farmstead—possibly the meter pole in order to remind you to shut off the electricity. A water pump type into which water can be poured as it is being used is probably best but two people are needed—one pumping and one carrying water. Anti-freeze can be used to keep this type of extinguisher from freezing.

A third priority extinguisher would be for the shop. A dry chemical or carbon dioxide unit for fighting oil or electrical fires would be best.

Fourth priority would be a 2½-5 lb. dry chemical extinguisher for the farm tractor.

If it is not possible to have all the extinguishers suggested, then get the most important one first and add the others later. Also, if you have greater danger at other locations, a different priority might be better for you.

CARE AND MAINTENANCE

Take proper care of your extinguishers. If there is a worse mistake than not having extinguishers it is to have them and fail to keep them in working order.

See other side for details on different types of extinguishers.
Each class of fire calls for specialized action. Using the wrong extinguisher may do more harm than good. For your own protection, you should know these basic types, how to use them, and why.

### Types of Fires

#### Class A Fires
- **Water**: Saturates material and prevents rekindling.
- **Foam**: Forms a heavy wetting layer.
- **Carbon Dioxide**: Leaves no residue, will not damage equipment.
- **Dry Chemical**: Chemical smothers fire.

#### Class B Fires
- **Water**: Spreads fire, not put it out.
- **Foam**: Provides smothering action.
- **Carbon Dioxide**: Leaves no residue, does not affect equipment or foodstuffs.
- **Dry Chemical**: Leaves no residue, protects from freezing.

#### Class C Fires
- **Water**: Not to be used.
- **Foam**: Small surface fires only.
- **Carbon Dioxide**: Leaves no residue, will not damage equipment.
- **Dry Chemical**: Leaves no residue, protects from freezing.

### PRESSURE SOURCE

- **Stored air pressure (Dry Chemical)**
- **Pump** (Water or Foam)
- **Pressure from chemical reaction** (Foam, Dry Chemical)

### CAPACITY AND UL RATING

<table>
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<th>Type</th>
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<td>Class A fires; water, wood, cloth, etc., where smothering action is required.</td>
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<td><strong>B</strong></td>
<td>Class B fires; burning liquids (gasoline, oils, paints, etc.), where smothering action is required.</td>
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### MAINTENANCE

- **Discharge and recharge annually.**
- **Hydrostatic test** every 5 years.
- **Inspect periodically.**
- **Weigh annually.**

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<td><strong>DRY CHEMICAL</strong></td>
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### Regular, Purple K and Foam-Compatible DRY CHEMICAL

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### General Purpose DRY CHEMICAL

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### Adopted from a chart produced by Walter Kidde & Company. To clarify information it is sometimes necessary to use trade names of products or equipment. No endorsement of named products is intended nor is criticism implied of similar products not mentioned.