



## **PRESS RELEASE**

### FOR MORE INFORMATION

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### **Barn Fires: 30 Seconds is all Your Animals Have**

By the Vermont Veterinary Medical Association  
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Barn fires can begin without warning, spread rapidly, and cause severe damage and injury in just a few minutes. Even if the fire is extinguished quickly or barn evacuation works well, the damage can be significant in just a short time. Protecting a horse stall is not the same as fire protection in the home. Dry bedding material is very flammable. In just a few minutes, burning straw reaches a temperature of 300 degrees Fahrenheit, which is the same rate as gasoline. Once a fire starts in a stall and spreads to only four feet, most animals are injured. Animals caught in barn fires suffer not just burns but also severe damage to the respiratory tract (from inhaling toxic fumes) and damage to the eyes. If the animal is to escape unharmed, he must be rescued from the stall in 30 seconds. Unless you are an Olympian, you cannot get to the barn in time to save the animals from injury. So while fire detection and rescue are important, even more important is preventing the fire.

The most obvious place to start is to eliminate the source of heat/fire. Do not allow smoking within 30 feet of the barn and enforce it. Post "No Smoking" signs prominently throughout the facility. Provide a safe place for those who must smoke to do so and a means for them to thoroughly extinguish their cigarettes. (There is always someone who is going to "sneak a smoke"- better to have a safe place for them to do so.) Wires that have lost their insulation covering due to rodent damage or are not protected in a conduit can provide a heat source for fires. Make sure all switches, outlets, and light bulbs are free of damage (and cobwebs!) Shut off and unplug all electrical appliances when not in use and try not to use extension cords. Sparks from a farrier's forge can start a fire, as can grills that are used for "barn parties". Lightning strikes can set barns on fire. Have a lightning arrestor installed on the barn.

Materials that are flammable should be stored properly. Make sure hay is properly cured before putting it in the barn and avoid stacking it above the stalls. There have been many cases of such hay spontaneously bursting into flame resulting in loss of the entire barn and all the animals. Hay and bedding ideally should be stored in a separate building or at least

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not over the top of the stalls. Keep the aisles clean of all loose hay and bedding. Cobwebs can act as fuses because they are usually loaded with dust particles and small pieces of hay/bedding. In addition, vegetation outside the barn can feed a fire. Don't store oil and gasoline in the same building as animals, and don't store tractors or other work vehicles in barns or arenas when not in use. Often overlooked are horse products such as liniments, cleaning products, and insecticides. These are all flammable and should be kept in metal cabinets.

What about early detection? While fire detectors are helpful, they will sometimes give false alarms due to the amount of dust found in barns. Infra-red detectors need to "see" the flames before they sound an alarm and smoldering fires can produce large amounts of toxic gasses well before any flames are evident. There are other alarms and heat sensors which can be heard within the barn/arena or outside the building, and remote monitoring systems which will send alerts to the home of the owner, to their cell phone, or even to the local fire department. Whichever you use, check them frequently to make sure they are functioning properly.

If you are planning on building a wood barn for your animals, there are many ways to reduce fire risk. Talk to your contractor about using wood that has been pre-treated with a fire retardant, building with large wooden beams (which are more fire resistant than 2x4s and 2x6s), using joint straps with nails or screws instead of gusset plates, and install fire stops every 50-60 feet to stop a fire from racing from one end of the barn to the other through the open rafter space. This is important because once the rafters burn through, the roof can fail and collapse on animals and rescuers. Some recent options include using concrete "tip-ups", mortar and concrete blocks, or metal support beams for doorways and even using metal roofs. Consider installing a sprinkler system.

Once you have reduced combustible materials and sources of heat, have a plan in place in case of fire. Practice it. Hang a halter and lead rope on each stall door and make sure everyone knows where the "safe place" is located away from the barn to place horses in the event of a fire. Simply turning horses loose often results in disaster: they will try to run back into their stalls. Never place a lock on a stall door. Have fire extinguishers at each barn door and by the electrical service panel, have enough water hose to reach the length of the barn (have a way to prevent them freezing in winter), and consider a sprinkler system.

Invite the local fire department to visit for an inspection. Preventing fire is their specialty, and most are happy to help you with a plan. Make sure you have adequate access for emergency vehicles and good signage for quick access in the event of a fire.

Remember, just because you have never had a fire doesn't mean the potential is not there. Unless you are present the moment the second the fire starts, it is highly unlikely that your animals and property are going to survive without damage. If the fire starts in the stall, 30 seconds is all your animal has before it is injured. Prevention is key.

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*The Vermont Veterinary Medical Association (VVMA), founded in 1898, is a professional organization of 360 veterinarians dedicated to compassionate animal care and quality medicine.*