

Preventing Barn Fires

Good fire prevention practice includes regular habits as well as design and build strategies.

There are few things in life more terrifying than an out-of-control wildfire roaring toward your property. The recent wildfires in California have heightened most horse owners' concerns about losing their barn to a fire.

By one estimate, more than 4,500 barns are lost to fires each year and fire officials believe most of those losses were preventable. Responsible horse owners, who are otherwise fastidious about protecting their animals from injury and illness, too often leave fire prevention entirely to chance.

Although it is not possible to make a barn 100% fireproof, there are many ways to reduce the threat of fire:

Strategy of Habits

One of the key principles of fire safety is to keep heat and flammables apart. An easy way to accomplish this is to reduce the potential fuel for a barn fire outside and inside your building. Start outside by making a firebreak around your barn by removing brush, trees, tall grass and debris.

The U.S. Forest Service Guidelines recommend that you clear a distance around your building that is three times the height of the burnable material plus 10 feet for every 15 degrees of slope on land. For example, if the vegetation is 8 feet tall ($3 \times 8 = 24$) on a 30-degree slope ($30/15 = 2 \times 10 = 20$), you would need to clear a radius of 44 feet ($24 + 20 = 44$) around the barn.

More Fire-Conscious Practices:

- Remove railroad ties in any surrounding landscape. Some wood products contain creosote

which works as a fire accelerant.

- Store hay and combustibles such as wood shavings in a separate building.
- Wet hay can start fires through spontaneous combustion, so make sure that any hay that is stored is properly cured and kept dry.
- Forbid smoking in and near the barn.
- Use caution when allowing mechanical heat sources for repairs and construction, such as welders and propane torches.



Clearing brush in the recommended radius around structures can reduce the risk of your barn falling victim to a wildfire.

Design/Build Strategy

Another way to protect your property is to design, build and outfit your barn with fire safety in mind. Heat from a fully engulfed wildfire will burn almost any barn material except possibly masonry.

Some Building Codes in California won't approve tongue and groove stack wall barns due to the increased fire danger. Wood is the most burnable material. FCP Design Consultant Danny Parnell indicates that "fire-retardant lumber is available and can reduce combustibility, but it is expensive." Metal is far less flammable. Parnell adds, "A solid wall metal barn may cost a little more, but is well worth it."

Consider installing a sprinkler system. A sprinkler system can control the initial fire and allow you time to remove your horses. While the initial investment may seem high, check with your insurance agent as some companies may cut your annual premium by as much as 50 percent if you have an acceptable system.

Retrofitting an existing barn with a sprinkler system can cost as much as \$5.00 per square foot depending on the structural circumstances and water availability, but can be less expensive if included as part of new construction.

More Fire-Conscious Design/Build Tips:

- Make sure to include plentiful exits in your barn design and install a grounded lightning rod system for protection during electrical storms.
- Cage all electrical fixtures.
- Don't use extension cords; if needed, use an industrial-grade cord and don't overload it.
- Try to have both water and a power supply

installed outside of your barn. Keep a hose attached to your external water supply.

Response Strategy

It is vital to be ready to meet any fire emergency fully prepared. Reducing the chance of a catastrophic barn fire includes preemptive strategies to hit the fire before it can get established. Also, it is crucial to have a strategic plan to ensure that the horses and people in the barn come out safely.

Response Preparation Tips:

- Install detectors and alarms that sense heat and smoke and alert people inside and outside of the barn.
- Place fire extinguishers within reach, about every 40 feet, or keep one at each entrance, in the tack room and near feed storage.
- Post directions to your barn next to the phone.
- Keep a halter and lead shank on every stall door, ready to lead your horses to safety. Consider marking each with glow-in-the-dark paint or reflectors.
- Make your property easily accessible to emergency services; post the street address at the entrance to your property so that it is clearly visible to speeding emergency vehicles.

Roaring flames and thick smoke can terrify every animal owner. With common sense approaches and planned emergency preparedness, that terror can be reduced—along with casualties to both precious animals and valuable property.

◆ To learn more about fire safety, call FCP at 1-800-807-2276 or go to FCPBuildings.com



Store hay in a separate building, preferably with metal walls.