

Barn Fire Prevention Reminders

As I sit here in the sweltering Sacramento Valley heat, my thoughts turn to fires, which are a constant threat at this time of year. The hills are brown, the vegetation is dry, and California fire crew manpower is down by 30-40% this year due to Covid-19. We all pray that we make it through this fire season without a major disaster. As a disclaimer, I'm certainly not an expert in fire prevention, but having worked with horses for many years and boarded in many barns, I am aware of the problems that exist and would like to share with you some 2020 fire prevention reminders. We have more time on our hands this year, so let's put it to good use and review our barn/trailer/horse safety precautions- one more time.

1. Check around for flammable or combustible material.

Whenever possible do not store your hay, straw, bedding, pesticides, or paint in the same building as your livestock, near any machinery that may generate a spark or near any type of electrical or heat source. Once hay is stored, try to monitor the temperature as hay is at risk for spontaneous combustion. The Humane Society of the United States suggests inserting a thermometer into the middle of the stack to monitor hay temperature. If it reads higher than 150°, check it regularly or disassemble the stacks to promote air circulation as the hay needs to be cooled. If greater than 175° Fahrenheit, **call the fire department**. They will help remove the hot hay from the storage structure.

Never purchase hay that is HOT because it can mean that it was baled too wet. It can become a fire hazard as well as developing mold.

2. Accelerants

Accelerants are substances that increase the speed at which a fire spreads - items such as gasoline, kerosene, oil, paint thinner, charcoal lighter fluid, etc. Store in approved and properly labelled containers. Plastic milk bottles do NOT qualify for storage! Yup, saw that at a ranch I was at.

An updated list of ALL chemicals on the ranch should be maintained. The list should include the name of the chemical, date purchased, quantity, and where it is stored. Keep this list in a safe, handy place - NOT just in the building where the products are stored. The location should be known to the boarders as well as the owners and be readily available for the fire department in case of emergency. At one barn I boarded, the owner provided a list of all chemicals on the property to every boarder to store in their tack box. She also included the phone numbers for fire department, animal control, police department and local vets on this information sheet. The list was updated yearly and handed out at the annual Christmas party.

3. Ignition sources

An ignition source is something that can cause an accelerant or flammable material to ignite or smolder. Items such as cigarettes and matches (best idea is to NOT allow smoking near the barn!), welding machines, machinery such as trucks and tractors, heaters, electrical appliances, fence chargers, batteries, and many other items. Barn fires have been started from machinery sparking or electrical tools.

Best to store vehicles and machinery in a separate building whenever possible.

Work safely in an area away from flammable items. Always have a fire extinguisher nearby.

Check the fire extinguisher yearly to ensure that it is full and in working order. Knowing how to use a fire extinguisher is also a PLUS! Practice on an old one. The fire extinguisher should be an ABC (all class) dry chemical fire extinguisher 5 to 10lbs. Even if a unit is partially discharged, you should replace it.

Fire extinguishers should be hanging at all exterior doorways, in the middle of long aisles and next to the electrical panel box. It is a good idea to cover fire extinguishers with a luminescent cover clearly marked "FIRE". In case of emergency, you want to find them quickly.

4. Access to the barn

Make sure roads and driveways are passable for emergency vehicles. Trim back low hanging branches. Gates should be wide enough for the fire department vehicles to get through. Overhead wires should be high enough for trucks, trailers, and emergency vehicles to easily pass under. There should be a 20-foot-wide fire/emergency lane around all buildings and structures. Your vehicles as well as those of boarders or guests need to be parked in a designated area that does not obstruct the roadway for emergency vehicles.

5. Barn construction

There are numerous newer materials available for building barns that increase fire safety. Materials such as fire-retardant building material or fire-retardant latex paint. Check with your local building inspectors for information.

Install smoke detectors, fire alarms and sprinkler systems whenever possible.

The presence of a water source on the premises such as fire hydrants or especially a pond, will help the fire department save buildings. Trucking in water from a distance is time consuming and will not save your animals or property.

6. Electrical systems and devices

Older barns may contain electrical systems that are not up to code, and this scenario has been the cause of barn fires. Check your outlets, switch boxes, electrical panel locations. Check that your wiring is in good shape and is encased in a metal conduit box. Although duct tape is the universal fixer, it is NOT appropriate to wrap frayed wires in duct tape and think that that fixes the problem.

Keep items such as extension cords away from animals. Best if these can also be run through conduit boxes to keep rodents from chewing through (or horses for that matter!).

Best practice is to have an external switch that can cut off all electrical power to the barn without affecting other buildings, in case of emergency (like the emergency shutoff valve at your local gas station).

Routinely check your light fixtures and the motors, circulation fans and water pumps. Motors should not be close to combustible mater. Check electrical fencing.

If you use space heaters in the barn, turn them off when you leave the area and make sure they have an automatic shut off device if the unit is tipped over. Never use them near hay or bedding. Do not use extension cords with heat lamps.

7. General safety precautions for your barn

Smoking should never be permitted in any barn, tack room, hay, or storage area.

Keep barn aisles clear of hay, bedding, and general junk.

Keep manure piles at least 20 feet from barns. Monitor the temperature of the manure pile. If it reaches greater than 180° Fahrenheit, there is a risk of spontaneous combustion. Turn the manure pile and distribute into small piles to increase the exposed surface area so it can cool.

A halter and lead rope should be available for each horse and hung on the stall door for emergencies.

Keep a dedicated fire hose and buckets nearby and make sure all boarders know where they are located.

Do not leave heavy items blocking the door of an occupied stall.

Install appropriate lightning protection.

Ground all pipes, water systems, electrical systems, and any telephone wires.

While this may seem like a lot to check, if done consistently, it will provide peace of mind that you are as prepared as you can be to protect your 4-legged family.

Last but not least:

Teach your horse to load quickly into a horse trailer. This may save his or her life someday. At a couple of the places I boarded, we practiced loading each other's horses into the other person's trailer at least once or twice a year. During an emergency evacuation is NOT the time to teach trailer loading.

My major resources for the above information were:

1. Safe Horse Farm Operation, DVD. Rutgers Equine Science Center, New Jersey Agricultural Experiment Station 1990
2. Making Your Horse Barn Fire Safe. The American Humane Society of the United States. 2005

I wish you all a safe and "uneventful" summer at your ranch or boarding facility. I know that several of our NATRC family experienced the Santa Rosa fires a few years ago. They know only too well how important fire preparedness is. So, take advantage of this down time and use it to upgrade your barn or property.

Happy trails and positive thoughts to everyone.

Linda Thomason

NATRC Region 1