



FACT SHEET

Department of Animal Science, University of Connecticut

Effective Horse Management – Horse Management Series

Fire Safety – Prevent, Prepare and Take Action!

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Fire safety may not be a thought on every horse owner's mind, but it should be in order to prevent tragedy from occurring. It seems like every horse owner knows stories of horrific barn fires and you certainly don't want to be the next one! The burning rate of loose straw is 3 times that of gasoline. The burning time of a 12' by 12' stall is approximately 90 seconds. You have 30 seconds to get a horse from a stall after the stall ignites, so start planning what to do NOW! There are three major aspects to fire safety: prevention, preparation for fire, and action to take when a fire occurs.

There are many ways to prevent a fire from occurring:

- **Keep the inside of the barn clean.** Fires need fuel to burn. Avoid piling up garbage, accumulating loose hay, bedding, baling twine, cobwebs, dust, and allowing birds to nest in the barn. Keep aisles clear and make a separate room for all tools and related objects, including wheelbarrows and buckets, which can become a safety hazard in an emergency.
- **Keep the exterior of the barn clean and neat.** Make sure it is free of combustible materials. Keep the lawn near the barn mowed and trimmed, since tall grass can ignite and spread to the barn.
- **Be accessible to emergency equipment.** Make sure that your driveway is clearly marked and your address is clearly visible in a prominent location. In the event of a fire, be sure that gates are open and wide enough for fire trucks to drive through. Keep overhanging branches cleared near the driveway so that fire trucks can have unobstructed access.
- **Properly use electricity.** Never use plastic coated wire. Use conduit or metal clad cable which is the safest electrical installation. Never overload fuses. Use heavy weight extension cords, and enclose light fixtures, especially incandescent bulbs, within safety shields.

- **Watch all stored hay for development of heat.** Never take a chance with wet or green hay. Spontaneous combustion is not an old wives' tale. Ideally you should store hay separate from the barn, with only small quantities kept in the barn at any time.
- **Never store volatile or flammable material in the barn.** This includes paints, gasoline, and oil. Don't collect old paint rags and brushes in the barn.
- **NO SMOKING in the barn.** If you have confirmed smokers on staff you should designate a smoking area away from the barn. Put up "NO SMOKING" signs.
- **Use the proper heaters.** Use only code approved, permanently installed electric heaters, and NEVER use portable space heaters.
- **Have an independent inspection of the barn by an electrician.** The electrician will confirm the safety of electrical devices and wiring. The number one cause of barn fires is electrical issues.
- **Have an inspection of the barn by your fire chief.** The fire chief will give you a fire prevention point of view. Listen, take advice, and act on everything that is reasonably possible.

You must also be prepared in case a fire occurs:

- **Install smoke detectors.** Check them monthly. Be sure to replace batteries in battery operated models.
- **Install fire alarms with a high decibel, resonant horn.** Make sure they are loud enough to be heard on the entire property.
- **Have a telephone located near the principal entrance of the barn.** Not only will this save time when calling the fire department, it can also be used in the case of horse-related emergencies. Have the fire department number posted near every telephone. Memorize the number, but don't count on your memory. Also have other emergency phone numbers such as the veterinarian and experienced, local horse owners' phone numbers listed in the barn (and house) if you need help.
- **Keep an ABC fire extinguisher and flashlight at all entrances.** Also keep fire extinguishers at areas of greatest fire risk such as hay storage areas. ABC stands for application of this fire extinguisher for wood, cloth, paper, flammable liquids, gasoline, grease and electrical equipment. Test extinguishers every six months and recharge yearly.
- **Know where to get water.** Have hose connections at strategic points, and hoses near by. If there is a brook, river or pond near, know how many feet of hose the Fire Department will need.
- **Install EMERGENCY EXIT signs.** This makes it easier to evacuate people from the barn in the event of a fire.
- **Have wooden latches on stall doors.** Metal will get too hot to handle.
- **Keep a stocked first aid kit for horses.** It should include: hoof pick, turkey baster (to gently flush wounds), betadine solution, cotton, sterile gauze bandages, cold pack (or bag of frozen vegetables), vetrap, veterinary thermometer (with long string attached), surgical scissors, saline solution or scrub, tweezers, flashlight with batteries, quilted leg wraps, polo wraps, extra halter and lead rope, twitch, emergency list of phone numbers, and vital signs of

the horse: pulse rate 35-44 beats per minute, temperature 99.5 to 101.5 ° F and respiration 8-16 breaths per minute.

- **Draw a diagram of your barn.** This is so that anybody who helps out in the event of an emergency knows where everything is located. Place a copy of this diagram in your house, in the barn where it can easily be seen, and in your first aid kit. The diagram should note doorways, electrical outlets, water, chemical storage and outside paddocks.
- **Keep leather halters and lead ropes on every stall for easy accessibility.** Nylon will melt into a horse's skin in a fire. Also, leather can break under stress freeing the horse from what could be a potential danger.
- **Learn to tie the quick release knot.** You will be able to tie horses if there isn't an accessible paddock or corral. You will also be able to release the horse quickly if needed.
- **Have available a supply of towels, grooming rags, and feed sacks that you can wet (in horses' water buckets) and cover over their eyes.** Horses are not usually panicked by smoke and can be led through it but they may be scared of open flame.
- **Once the horses are out, keep them out.** Get the horses into gated paddocks or a riding ring at a safe distance away. Remember that panicked horses may return to the barn, even to their blazing stall, in a false sense of security.
- **Draw up an emergency fire plan and practice it often.** Train every employee how to safely halter and lead a horse. Review the drill with all employees. Each person should know what to do first – you never know who will be first on the scene. Practice getting the horses out – it's good training for you and the horses. Learn where the problem areas are, which horses are the most difficult (and time-consuming) to manage. Time the drill. Study what could be done more efficiently. Run the drill with only one person doing everything – you might be alone in a real fire situation. If your horse is boarded at a stable review fire safety practices with the owner and fellow boarders.
- **Have a contingency plan for when you are away on vacation, etc.** An emergency box, kept in a place other than the barn, should include: first aid safety supplies, extra halters and lead ropes, barn diagram and emergency phone numbers.
- **Have the Fire Department come for a visit.** Ask the local fire department and the drivers of the equipment, which would be the first to reach the barn, to come and visit. Acquaint them with all entrances to the building, stall latches, and the area you have planned for the horses to be led to safety. Show them where the water connections are and, if you have it, where supplemental water (brook, pond, etc) is located.

It is very important to know what action to take when a fire occurs. This is where your practice will pay off. In case of a fire:

- **Evacuate people from the building.**
- **Call the fire department.**

- **Begin evacuating horses.** Use extreme caution. It is not safe for untrained people to enter a burning building. It is safest to wait for trained firefighters to direct evacuation of horses.
- **Open all access gates to the area so the fire trucks can quickly get in.**
- **Keep the roads clear for fire equipment access.**
- **Meet the fire department and direct them to the fire.**
- **Remind firefighters not to hose doors in winter weather until all animals are safely out.** In the winter weather the water may freeze the doors shut.

Remember the acronym **ARCH**:

- **Alarm** the people in the barn first, then the fire department, and ask for a “No Siren or Silent Approach” so as not to upset the horses.
- **Rescue** in this order: a) humans, b) horses, c) machinery, and d) buildings.
- **Calm** the horse(s).
- **Halter:** keep the horses out of the barn by putting them in a secure enclosure or tie them to a solid post safely away from the barn. Remember that horses may return to the barn, even to their stall, if it is on fire out of a false sense of security. Never tie a horse to a car, pool, porch, mailbox or other hazardous objects. Try to keep the horses together.

Hopefully this will inspire you to think more seriously about fire safety in your barn and the barns of others. A little prevention now will help keep a major disaster from occurring. Remember to prepare, plan, and take action!

Sources:

Rowland E., Forcier K., Rose, A. Feb 2001. Fairfield County 4-H. Fire Safety Awareness Program: Tips for Horse Owners booklet.
 Dr. Rhonda Hoffman, Fire Safety brochure. Undated.

Reviewers:

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