



## *About Barn Fires Involving Livestock and Poultry ~ A Discussion for Farmers*

### **Background**

Unfortunately, more often than not, barn fires result in extensive loss of both property and animals. Barn fires are one of the most challenging of all structural fires. First, barns are made of highly flammable material and they are filled with highly flammable material. Secondly, most barn fires begin in the middle of the night and go undetected until the barn is completely engulfed. By nature of their rural location, barn fires typically will have a longer response time. Barns with livestock or poultry add another complicating and difficult factor into the emergency scenario.

By developing a fire prevention and emergency response plan for your farm, you will greatly lessen the chance of a fire occurring and reduce your losses if one does occur. This article was developed to help guide you and your family as you think about barn fire prevention.

### **Tips & Hints: Prevention is Key**

1. **An ideal barn design has fire prevention as an important goal.** For example, stalls with doors that open to the outside or sliding doors into the aisles permit rapid evacuation, for people and animals.
2. All **wiring** should be installed by a professional and protected not only from the elements, but also from the animals and rodents who can chew on them. Situate electrical boxes in a location where they can be shut off quickly and safely. Have wiring inspected regularly. The less wires the better! Keep wiring to a minimum in the barn - this includes extension cords, radios, microwaves, televisions, etc.
3. Ensure your barn is outfitted with at least one large **fire extinguisher**. Two ABC fire extinguishers in good working order, one at each entrance to the barn, are preferred. A rubber hose that extends the length of the barn will help extinguish most early stage fires in a stable. **Do not use water to put out an electrical fire!**

4. All barns should have **smoke detectors**. Some farms have smoke detectors which sound the alarm in the house and water sprinklers. Large barns should be outfitted with alarms that not only detect fires, but also ventilation failures and power outages.
5. Turn off all non-essential lights. Lights should have protective covers where possible. Do not leave **heat lamps** or space heaters turned on and unattended around flammable materials. Many fires have been started in calf warmers made of plywood with straw and a heat lamp.
6. **Store combustibles (hay, shavings, manure, gas, oil, propane, paint, cutting torches, etc.) away from the barn.** Only a limited amount of hay should be stored inside the barn. Keep all haystacks away from the barn as the bales can be easily ignited by combustion or a lightening strike. Shavings will also heat up quickly and should not be stored in or near the barn. When cleaning the barn, all dirty straw, shavings and manure must be moved completely clear of the barn. *A large horse barn fire resulting in the death of over 30 horses was caused by the combustion of a manure and straw pile next to the barn.*
7. **Clean house** - Cobwebs and dust are combustibles! Stalls and pens should be cleaned out regularly and the ceiling and beams swept. Perform rodent control.
8. Do your yard work! **Keep all weeds and grass mowed** down and away from the barn. In the case of a grass, brush or forest fire, they will lead a direct path to your barn. It will also help keep rodents away from your barn. Ideally, you will just have dirt surrounding your barn creating a fire barrier.
9. **No Smoking!** Do not allow smoking in or around your barnyard.
10. Keep burn barrels away from the barn!
11. Keep all driveways clear of snow or obstacles that would prevent emergency vehicles from getting to the barn.

### In the event of a fire:

1. **Do not panic.**
2. **Call 911.** Tell the dispatcher it is a barn fire and give them the **emergency number address**. If you don't have an emergency number at the barn, know your land location and make sure your local fire hall knows the roads that can reach your farm in all seasons and weather.

## In the event of a fire (continued):

3. Tell them the **status** of the fire (smoke showing or fully involved).
4. Notify them if there are any **people** injured or trapped.
5. Notify them of the status and type of **animals** - if the animals are loose or contained and how many are still in the barn.
6. If your driveway is difficult to see or find, send someone out to meet the fire department. Many fire departments have delayed response time due to poor directions.
7. **Shut off** the power source to your barn.
8. If you are the only one at the barn, **DO NOT enter the barn!** If something happens, no one will know you are inside.
9. If the barn roof is on fire, do not enter the barn. The roof may collapse at any time.
10. Grain dust will ignite and explode. Do not try to auger grains during a fire.
11. If any animals get out of the barn, **secure them** in a containment area away from the burning structure (i.e. corral or trailer).
12. All burned and severely injured animals must be euthanized as soon as possible.
13. If you experience animal death loss you must follow provincial deadstock laws. In Ontario, follow the Ontario Dead Animal Disposal Act which is posted at: [www.omafra.gov.on.ca/english/livestock/regaffairs/ontar.html](http://www.omafra.gov.on.ca/english/livestock/regaffairs/ontar.html)  
If you have any questions or problems, call the Agricultural Information Contact Centre at 1-877-424-1300.

## Tips & Hints: About Specific Types of Animals

### Cattle

- Cattle are very difficult to remove from a burning barn. They will run back in if not confined away from the fire.
- It is best to try to move the animals in a group versus one at a time. Isolation greatly stresses the animals and they will not be cooperative if you attempt to move one at a time.
- Many beef animals are housed outside near or around a barn. Move them to a separate field away from the barn.
- Dairy animals will need to be evacuated to a protected area if the fire occurs in winter as they cannot withstand extreme weather.

### Poultry

- In poultry barn fires, the birds are almost impossible to evacuate. Virtually all poultry barn fires result in a 100% loss.
- Along with barn fires, ventilation system failures are a very common poultry farm disaster scenario. Ensure your barn is alarm linked to the main house and the alarm system is maintained and tested.

## Swine

- Pig barn fires are among the most difficult to deal with. Due to the design of the barns, the number of pigs in the barn and the difficulty in moving pigs, these barns are almost impossible to evacuate.
- Keep in mind that pigs are highly flammable.
- If you have a series of connected barns, do not attempt to evacuate the barn on fire. Begin to evacuate the next section in the barn or the next nearest barn if the pigs are in group pens. Experienced equipment operators may be able to break the barns apart to isolate the burning area.
- Just like cattle, pigs must be contained after removal from the barn as they will run back into the burning barn.
- The pigs must be protected from the cold if the fire occurs in the winter as they may quickly succumb to adverse weather.
- You must prepare yourself for the smell and the sounds of the animals involved in pig barn fires. These fires are very devastating.

## Horses

- Horse barn fires are the most common of all fires and horse owners may not always act rationally when responding to a barn fire.
- Horses must always be approached on and led from the left hand side.
- A horse will be easier to move if it is blindfolded. Using a towel under a halter works very well. Horses, like cattle may run back into the barn.

## Fire Prevention and Planning To Do List on the Farm

- Invite the local fire department to tour your barns and facilities. Point out to them the location of all power shut-offs and water source locations. It is also a good time to point out to them any dangerous animals or hazards they need to be aware of.
- Map your farm for emergency response teams showing where all animals, water sources and hazards are.
- Think about containment. Do you have a fenced area or access to fencing away from the barn where you could move animals to?
- Talk to your insurance agent or broker for information on assessing livestock facilities for “hot spots” and risk assessment.

Barn fires involving animals are often devastating to deal with, for the owners, responders and the community. Make sure responders and your farm family and/or employees have access to expertise for debriefing, particularly for large fires involving many animals. *Develop a plan, be prepared and prevent barn fires today.*

## Top 5 Things you need to know about... Barn Fires

1. **AT NO TIME SHOULD ANYONE PUT THEIR OWN PERSONAL SAFETY IN JEOPARDY TO SAVE AN ANIMAL FROM A BARN FIRE.**
2. It only takes **three to four minutes** for a fire to fill a barn with smoke. A barn will be completely engulfed in flames in less than 6 minutes.
3. Panicked animals normally will not leave a barn on their own as they do not fear fire.
4. Most animals are killed from smoke inhalation; those who do survive rarely recover.
5. The vast majority of barn fires are preventable!

### For more information on barn fires and livestock:

1. Contact your local fire department or insurance specialist.
2. Jennifer Woods, J. Woods Livestock Services [www.livestockhandling.net](http://www.livestockhandling.net)
3. [www.emergencytrainingsystems.com/emergencytrainingsystems/barnfiretactics.html](http://www.emergencytrainingsystems.com/emergencytrainingsystems/barnfiretactics.html)
4. [www.thehorse.com](http://www.thehorse.com)
5. [www.cdc.gov/nasd/docs/d000801-d000900/d000843/d000843.html](http://www.cdc.gov/nasd/docs/d000801-d000900/d000843/d000843.html)

A comprehensive website of technical farm animal welfare related information including a searchable research database [www.livestockwelfare.com](http://www.livestockwelfare.com)

Information about farm animals in general and Virtual Farm Tours [www.farmissues.com](http://www.farmissues.com)

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