

Barn fires involving farm animals

Accidents involving farm animals can be reduced through awareness and education.

Barn fires are one of the more challenging structure fires for first responders. Arriving at a barn fire with farm animals presents unique challenges. One of the most difficult parts of barn fires for owners and first responders is the smells and sounds that occur when animals are involved, especially pig barn fires. Barn fires have the potential for loss of thousands of animals. Prepare yourself and your team.

Many first responders are not familiar with barn design or animal handling, making the scene even more dangerous and challenging than a typical structure fire. By educating your department on what to expect at a barn fire and giving them some basic guidelines, you will be able to more effectively respond to a barn fire and keep your crew safer.

Barns are highly flammable buildings that go up quickly and burn fast. **It only takes three to four minutes of the fire starting for the barn to be completely filled with smoke. A barn will be completely engulfed in less than six minutes.**

The vast majority of barn fires occur late at night or early morning hours, often going undetected until flames are showing. They rarely have smoke detectors or sprinkler systems installed. Due to the locations of barns in rural areas, by the time the fire department arrives, the barn is quite often fully involved. Upon arrival, water is often limited as there may not be access to fire hydrants.

Animals are often housed as groups in pens or individuals in stalling. There can be as few as one animal stalled in a barn up to tens of thousands of animals in a single barn. Depending on animal type and barn design, some animals can be evacuated, while others will be impossible to evacuate.

Good practice tip:

Fire departments in areas with barns should hold barn fire education nights for farmers and related facility owners. Along with providing the basics of barn fire prevention, you should encourage the owners to invite your department out to tour their facilities and barns to become aware of the location of hazards and water sources, and provide you with information about the animals on their farm and the design of the barns.



The following guidelines are intended to provide guidance to first responders when relaying important information back to dispatch.

What a dispatcher should ask the caller:

1. Are there any people in the barn or missing? Instruct them to not enter the barn, especially if they are the only ones present.
2. Are there animals in the barn? If yes - What type? How many?
3. Are there any loose animals?
4. Are there any known hazards the first responders should be aware of?
5. To shut off the power source to their barn.
6. In the case of adverse weather – is the road passable?
7. If their driveway is difficult to see or find, to send someone out to meet the fire department with a flashlight at the end of the drive or road.

Hazards you may encounter on a farm:



- **Propane tanks**
- **Fuel tanks**
- **CO2 tanks**
- **Chemicals (i.e. fertilizer, crop sprays)**
- **Cutting torches**
- **Manure piles**
- **Hay stacks**
- **Waste ponds**
- **Dangerous animals**



Upon arrival at the farm

- 1 Be alert for loose animals as you approach the farm, even if the caller did not state there were loose animals.
- 2 Ask the people present:
 - a) Are there any people in the barn or missing?
 - b) Are there animals in the barn? If so, what type and how many?
 - c) Ask if there are any hazards/combustibles you need to be aware of.
 - d) Location of power shut off.
 - e) Ask where the closest water source is including ponds, dug outs, swimming pools or hydrants.
- 3 If there is a chance of the structure fire spreading to a nearby field, request the farmer begin plowing a dirt fire barrier around the barn area, without getting too close to the barn.
- 4 If animals are housed in corrals next to the barns, they will need to be moved to another corral or holding area. Do not just turn them loose as they become a hazard to all people on scene and can potentially get on to the road and into traffic.
- 5 **AT NO TIME SHOULD A FIRE FIGHTER OR ANYONE ELSE PUT THEIR OWN PERSONAL SAFETY IN JEOPARDY TO SAVE AN ANIMAL FROM A BARN FIRE.**
- 6 If the barn is not fully involved and the roof is not on fire, evacuation of some animals may be possible. If there is a series of connected barns or other barns in close proximity, it may be more effective and safer to evacuate the animals in those barns versus the barn that is on fire.
- 7 Evacuating animals from a barn can be extremely challenging, and actually impossible in some cases. It will take an experienced person approximately one minute to halter and lead a horse 100 feet, if they cooperate from a barn. A barn will normally become fully engulfed within six minutes.
- 8 The animals closest to the doors should be the first ones evacuated as they are the easiest to get to. If the barn has individual exterior stall doors, use them for evacuating animals instead of going inside the barn.
- 9 Once animals have been evacuated from the barn, they must be contained in a field or corral or trailer away from the fire as animals will run back into a burning barn.
- 10 If there is a chance any of the animals have embers under their hair, they must be hosed off. Embers can smolder under their hair for several hours leading to burns. The majority of animals suffering from burns will need to be euthanized.

Most animals are killed by smoke inhalation, and those who survive rarely recover. If you have a fire involving horses, be sure to inform the owner that horses have a delayed reaction to smoke inhalation and must be given veterinary care immediately.



After the fire

If there is animal death loss in the fire, you must follow the Dead Animal Disposal regulations in your province. A summary of Ontario deadstock regulations can be found at www.omafra.gov.on.ca/english/nm/regs/deadstock/summary.htm

If you have any questions about deadstock in Ontario, call the Agricultural Information Contact Centre at 1-877-424-1300 during business hours.

Barn fires involving animals are often devastating to deal with, for the owners, responders and the community. Make sure responders and department members have access to expertise for debriefing, particularly for large fires involving many animals. Work with farmers, develop a plan, and be prepared.

Animal behaviour and handling in emergencies

Animals are very difficult to remove from a burning barn. They will run back in if not confined away from the fire.

Approach all animals with extreme caution as they are frightened and can be very dangerous.

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 cooperate if you attempt to move one at a time.

Handle animals at all times quietly and calmly to prevent them from panicking which can lead to stampeding.



Cattle (beef, dairy, veal, bulls, cows, calves)

Beef cattle are commonly housed outside near or around a barn in groups. Move them to a separate field away from the barn.

Some dairy farms house their animals in groups, others have them tied or penned individually. Dairy cows will need to be evacuated to a protected area if the fire occurs in winter as they cannot withstand extreme weather.

Dairy cattle can be very challenging to move in a crisis situation. They are extremely tame due to the high level of human interaction they have with humans so fear may not be a motivating factor.

Bulls can be extremely dangerous and only people familiar with them should handle them.



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.



Swine

Pig barn fires are the most difficult to deal due to the design of the barns, the high number of pigs in the barn and the difficulty moving pigs, these barns are almost impossible to evacuate.

Pigs must be protected from the cold if they are evacuated in the winter.



Poultry (chickens, turkeys, ducks, geese)

In the case of a poultry barn fires, the birds are almost impossible to evacuate. Virtually all poultry barn fires result in a 100% loss.

Laying hens are commonly housed in cages. Chickens raised for meat as well as turkeys, ducks and geese are usually loose in the barn.



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For more information:
www.FarmFoodCare.org
www.LivestockHandling.net

Farm & Food Care Ontario
100 Stone Road West, Suite 202
Guelph, ON N1G 5L3
T (519) 837-1326
E info@farmfoodcare.org