



## **Barn Fires Involving Livestock Facts for First Responders**

### **Background**

Barn fires are one of the more challenging structure fires for first responders. Barns are highly flammable buildings that are often filled with highly combustible items. These structures go up quickly and burn fast. The vast majority of barn fires occur late at night or early morning hours, often going undetected until flames are showing. Due to the locations of barns, by the time the fire department arrives, the barn is quite often fully involved.

Adding to the challenge of a barn fire is that many of these structures house animals. Depending on the type of animal and barn design, some animals can be quickly removed, while others are impossible to evacuate.

Fire departments in areas with barns should hold barn fire education nights for farmers and livestock-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.

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.

## Tips & Hints: For dispatch

1. Provide your dispatch with a list of questions they need to ask the caller when the initial barn fire call comes in. (See list below)
2. Have your dispatch find out from the caller if there are any people missing or trapped in the barn, the type of animals involved, the number of animals involved, if there are any loose animals, and if there are any other known hazards they need to be aware of.
3. After obtaining directions from the caller, have dispatch request that they send someone to the end of their lane or road with a flashlight to ensure you are able to quickly locate the farm. Many fire departments have delayed their response time due to poor directions. Also ensure the fire truck will be able to get down the driveway.
4. Road conditions and passable roads are not marked on dispatch maps; ensure the department members know which roads are passable in **different weather conditions**. This factor can make a huge difference in response time.

### 911 Dispatch Check List for Barn Fires

In addition to the regular location questions, this is a list of questions 911 dispatchers must ask the caller and relay to the first responders related to barn fires.

#### You must ask the caller:

1. **Are there animals in the barn? If yes - What type? How many?**
2. **Are there any people in the barn or missing?**
3. **Are there any loose animals?**
4. **Are there any known hazards the first responders should be aware of? (propane tanks, fuel tanks, pesticides, dangerous animals, etc.)**
5. **In the case of adverse weather – is the road passable?**

#### If possible, have dispatch relay to the caller:

1. If their driveway is difficult to see or find, request the caller send someone out to meet the fire department with a flashlight.
2. Request the caller shuts off the power source to their barn.
3. Request that the caller does not enter the barn, especially if they are the only ones present.

## Tips & Hints: 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. Upon arrival at the fire scene, ask the owners :
  - 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 such as propane tanks, fuel tanks, cutting torches, manure piles, hay stacks, waste ponds or dangerous animals.
  - d) Location of power shut off.
  - e) Ask where the closest water source is including a pond, dug out, swimming pool or hydrant.
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.

## Tips & Hints: About the Animals

Arriving at a barn fire with livestock or poultry 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.

1. ***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.***
2. 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.
3. Approach all animals with extreme caution as they are frightened and can be very dangerous. (See species specific information below.)
4. Evacuating animals from a barn can be extremely challenging, and actually impossible in some cases (see species specific handling below). As an example, for horses, it will take an experienced person approximately 1 minute to halter and

lead that horse 100 feet, if they cooperate. A barn will normally become fully involved within 6 minutes.

5. The animals closest to the doors should be the first ones evacuated as they are the easiest to get to.
6. Use exterior stall doors whenever possible for evacuating animals instead of going inside the barn.
7. Depending on barn design and structural integrity, you may be able to punch a hole in the side of the barn to allow animals to flee the barn. Remember, animals rarely leave a burning barn on their own. They do not fear fire itself.

### **Tips & Hints: If the animals are out of the barn**

1. If animals are loose or 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.
2. 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.
3. Burns are extremely painful. The majority of burned animals 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.
4. If there is animal death loss in the fire, you must follow the Dead Animal Disposal regulations in your province. Ontario's Dead Animal Disposal Act can be found 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 about deadstock in Ontario call the Agricultural Information Contact Centre at 1-877-424-1300.

## Tips & Hints: About Specific Types of Animals

### **Cattle: (beef, dairy, veal, bulls, cows, calves)**

- 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 cooperate if you attempt to move one at a time.
- 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 animals will need to be evacuated to a protected area if the fire occurs in winter as they cannot withstand extreme weather.

### **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.

### **Swine**

- Pigs barn fires are most of the most difficult to deal with. Due to the design of the barns, the high number of pigs in the barn and the difficulty in moving pigs, these barns are almost impossible to evacuate.
- Pigs can be housed in large groups or in individual pens.
- Keep in mind that pigs are highly flammable.
- If the barn is a series of connected barns, do not attempt to evacuate the barn on fire, but begin to evacuate the next section in the barn or the next nearest barn.
- Just like cattle, pigs must be contained after removal from the barn as they will run back into the burning barn.
- Pigs must be protected from the cold if they are evacuated in the winter.
- In the case of a pig barn fire, you must prepare yourself for the smell and the sounds of the animals. These fires are very devastating.

### **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, turkeys and ducks are usually loose in the barn.

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

1. **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.**
2. It only takes 3 to 4 minutes of the fire starting for the barn to be filled with smoke. A barn will be completely engulfed in less than 6 minutes.
3. Panicked animals normally will not just 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!

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.

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

1. Jennifer Woods, J. Woods Livestock Services: Factsheet Author [www.livestockhandling.net](http://www.livestockhandling.net)
1. [www.emergencytrainingsystems.com/emergencytrainingsystems/barnfiretactics.html](http://www.emergencytrainingsystems.com/emergencytrainingsystems/barnfiretactics.html)
2. [www.thehorse.com](http://www.thehorse.com)
3. [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)

### Printed and distributed in Ontario by the Ontario Farm Animal Council.

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April 2007

This information is from the "Putting Farm Animal Welfare on the Agenda" project. Funding provided in part through Agriculture and Agri-Food Canada's Advancing Canadian Agriculture and Agri-Food Program.

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