

MIFACE INVESTIGATION #06MI205

Subject: Farmer Dies Leading Heifer Toward a Loading Chute to a Livestock Trailer

Summary

On December 10, 2006, a 76-year-old male farmer was injured when he was struck by a heifer as it was walking in an alley toward the loading chute to a livestock trailer. The alley was “L” shaped. One side of the alley was the wooden barn wall with concrete support posts and a concrete quarter-wall slab (Figure 1). The other side of the alley was constructed of portable wooden gates made of 2-inch by 6-inch pieces of lumber. The livestock trailer was at the front of the barn. To be loaded into the trailer, the heifer entered the alley from the yard through a barn door, walked down a 36-

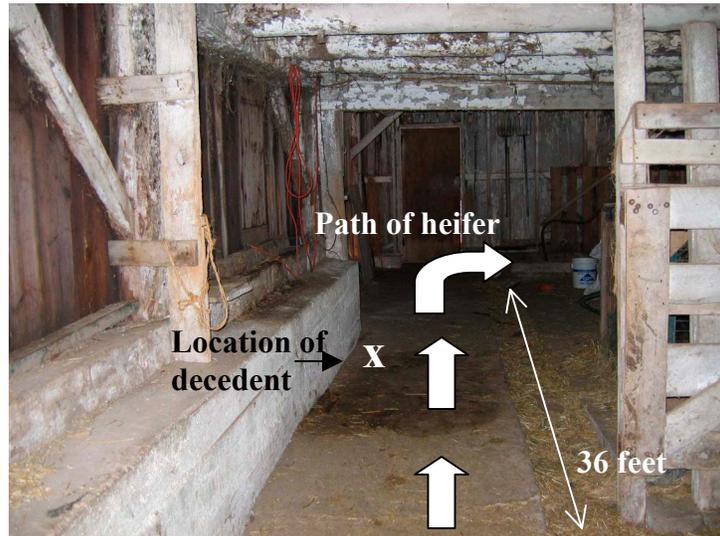


Figure 1. Alley toward loading chute. Portable wooden gates that would have been in place at the time of incident have been removed. Picture taken from yard entrance.

foot-long alley, made a 90-degree right turn, walked down a 23-foot-long alley, and then was directed by an angled portable gate into the livestock trailer. The incident occurred about 20 feet into the 36-foot-long alley. The decedent was kicked in the head by the heifer (Figure 1). This was an unwitnessed event, so it is unknown how the decedent was positioned at the time of the incident. The hauler heard the commotion inside of the barn and discovered the decedent on the floor. He called 911 and emergency response arrived. The decedent was transported to a local hospital where he died the next day.

RECOMMENDATIONS

- Livestock farmers should ensure that the alleys to loading chutes are designed and constructed to maximize safe cattle handling.
- Livestock farmers should review each individual cow’s behavioral characteristics and determine the flight zone around each cow so that the handler can provide a safe loading experience for the cow as well as for the handler.
- Livestock handlers should conduct a risk assessment, including how to minimize unintended animal contact.

Key Words: Agriculture,
Livestock Handling

INTRODUCTION

On December 10, 2006, a 76-year-old male farmer was struck in the head by a heifer he was preparing to load on a trailer. He died the next day from the injuries sustained on December 10, 2006. MIFACE investigators were informed of this work-related fatality by a newspaper clipping. On April 13, 2007, MIFACE interviewed two family members of the decedent at the incident site. The family permitted MIFACE to take pictures of the site. During the course of writing this report the police department report was reviewed. The medical examiner did not conduct an autopsy. All pictures used in this report were taken by the MIFACE researcher at the time of the site visit.

The family members were not at the decedent's farm at the time of the incident. The family had limited information about the heifer that was involved in the incident. The decedent's passion, according to his family members, was beef cattle. He had retired from an automotive company several years previously. He had 28 head of Charolais beef cattle. He harvested both hay and corn to feed the cattle. Every year, he would sell several of the older animals and buy new animals. His family stated that he was very "hand's-on" with the animals.

INVESTIGATION

An area of the barn was designed for loading cattle. The barn was also home to the decedent's dog and several cats. On the day of the incident, the decedent was loading a bull and a heifer into a livestock trailer that was positioned at the front of the barn. The farmer was working alone in the chute. The event was unwitnessed.

The decedent had fashioned an L-shaped alley as the pathway to the loading chute. Whether any items were on the floor or hanging from the wooden gates is unknown. One wall of each alley was the barn wall. The other side of the alley was constructed of portable wooden gates made of 2-inch by 6-inch pieces of lumber (Figure 4). The heifer entered the 36-foot-long, 4-foot-wide alley from the yard through the barn door (Figure 2, Letter A). The heifer would then turn 90 degrees to the right into a 23-foot-long alley (Figure 3). At the end of the 23-foot-long alley a gate was positioned at an angle to direct the heifer into the livestock trailer.



Figure 2. Loading chute. Picture taken from end of 36-foot chute at 90-degree right turn.

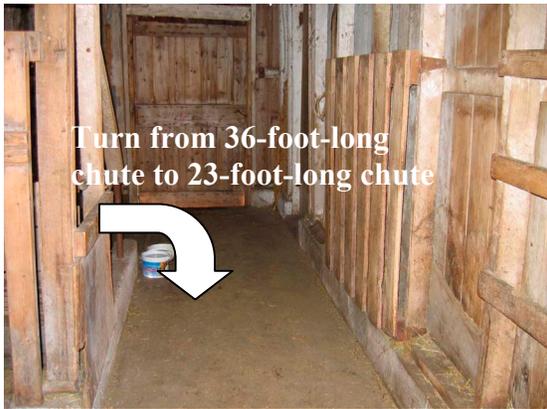


Figure 3. Picture taken at end of 23-foot-long alley where angled gate would have been positioned



Figure 4. Gate type used to provide the alley and chute walls.

The 36-foot-long alley had two distinct “sections”. Directly after entering the door, the heifer walked upon packed dirt, then up a very small ramp to the alley’s concrete floor. The section nearest the barnyard access door had a quarter-wall cement slab adjacent to the barn wall that extended for 23 feet. The alley in this area was approximately four feet wide. The remaining 13 feet of alley had the barn wall on one side and the gates on the other side. The alley in this area was approximately five feet wide. The decedent placed a radio on the ledge at the end of the concrete slab in the first section of the alley (Figure 2, Letter B). According to the family, the decedent left the radio playing at all times.

Two animals, a bull and the heifer were being sold. The bull had been loaded into the livestock trailer using the same alley without incident. The decedent herded the heifer from the barnyard, through the door and into the alley. The family members did not know if the heifer was pregnant or injured at the time of loading. The cattle hauler standing near the trailer heard “clanging” and went to investigate. He found the decedent on the floor at the end of the quarter-wall concrete slab by the radio. The cattle hauler could not revive the decedent and called 911. Emergency response arrived and the decedent was transported to a local hospital where he died the following day.

The decedent kept a radio on at all times. Although the cattle in the barnyard may have become “conditioned” to noise of the radio, it cannot be ruled out that the radio volume and type of music played may have been a factor in this unfortunate incident. The decedent was found in the vicinity of the radio. The radio may have initiated a fright/flight response from the heifer causing it to turn into the decedent, knocking him down or kicking the decedent out of fear.

Other distractions in the barn may have also played a role in this tragic incident. The cats stayed in the barn. It is not far fetched that there may have been bird nests in the area. If while the heifer was in the alley a bird flew by or the cats ran in front or jumped down

from the rafters while the heifer was walking in the alley, the heifer may have been spooked, causing it to have a fright/flight response.

CAUSE OF DEATH

The cause of death as stated on the death certificate was a blunt force injury to the head caused by a kick from a farm animal.

RECOMMENDATIONS/DISCUSSION

- Livestock farmers should ensure that the alleys to loading chutes are designed and constructed to maximize safe cattle handling.

The gates as constructed would have contributed shadows in the alley. Bright spots and shadows tend to make animals more skittish. Due to their limitation in vertical vision, their lack of depth perception, and their lack of ability to focus quickly, cattle have an extreme sensitivity to contrasts, which may cause the animal to balk at shadows or rapid changes from light to dark.

Cattle will move forward more easily in an alley with solid sides. Solid sides reduce shadows and if so constructed, provide uniformity in color, which can reduce balking. The solid sides must be high enough so the animal only can see where you want it to go. The handler must stay outside the solid area and crowd the animal with a series of gates. Solid-sided working alleys can be built with wood or pipe frames covered with sheet metal or exterior plywood. Pre-constructed, metal working alleys/chutes can be purchased from handling equipment vendors. These can also offer the option of being somewhat mobile.

Alleys and chutes should be wide enough to allow animals to pass, but not wide enough to allow them to turn around. The width depends on the size of the animal. A width of 28-30 inches is recommended for a cow-calf operation. For cattle in the range of 800-1,200 pounds, a 26-inch width is recommended. The measured width of the incident alley was four feet, which was wider than the recommended widths. The alley width may have permitted the heifer to maneuver her body within the alley and contact the decedent in an unanticipated way.

- Livestock farmers should review each individual cow's behavioral characteristics and determine the flight zone around each cow so that the handler can provide a safe loading experience for the cow as well as for the handler.

Age, breed, sex, temperament, training, weight and weather conditions can affect behavior. Cattle's field of vision defines their "personal" space or the "flight zone." When a person moves into an animal's flight zone, the animal will normally try to move away. The flight zone varies from animal to animal. The ideal angle of approach is in the zone 45 to 60 degrees behind the line of the shoulder. Cattle will normally move effectively if the handler works on the edge of the flight zone. Deep invasion of the flight

zone can cause animals to panic. The decedent was in the alley with the heifer while it was being walked to the chute. The decedent may have inadvertently entered the flight zone of the heifer and caused the heifer to panic and strike out at him. Another scenario is that the decedent was walking behind the heifer and the heifer balked or backed up. Upon contact with the decedent, the heifer became frightened and turned and struck the decedent or kicked him, causing the decedent to fall or may have kicked him after he fell.

- Livestock handlers should conduct a risk assessment, including how to minimize unintended animal contact.

Although the decedent had a great deal of experience working with and loading cattle, the unexpected animal reaction resulted in a tragic incident when the decedent was in the alley with the heifer. A risk assessment is an examination of what, in your work, could cause harm to people and property, to allow you the opportunity to address the identified risks. Because animals are unpredictable, it is very important for the handler to address the identified risk of unpredictable behavior to minimize and control the possibility of human and animal injury.

The REFERENCES section contains many useful websites and information to assist in identifying potential risks that may be present during animal handling.

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10/1/07

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