



STATE OF NEW YORK DEPARTMENT OF HEALTH

FATALITY ASSESSMENT AND CONTROL EVALUATION

Elderly Farm Worker Crushed to Death by Dairy Cows Case Report: 03NY024

SUMMARY

On the morning of May 8th, 2003, a 67-year-old farm worker was helping to move dairy cows during the morning milking when he was crushed by two cows. The cows had entered a small, enclosed area while being moved from the milking parlor back to the freestall area of the barn. The worker was attempting to move them out of this area when the incident occurred. He was discovered shortly after the incident by one of the milkers. The farm owner was called, and upon finding no signs of life, the farm owner called 911. The emergency squad responded promptly, but was unable to resuscitate the farm worker. The victim was transported to the nearest major trauma hospital where he was subsequently pronounced dead.

New York State Fatality Assessment and Control Evaluation (NY FACE) investigators concluded that to help prevent similar incidents from occurring in the future, the following recommendations should be followed:

- *Cow-handling facilities should be designed to minimize hazards and facilitate smooth animal travel;*
- *Workers should not place themselves inside small enclosed spaces where cows are present;*
- *When working around large animals that are exhibiting unusual behavior, workers should seek additional help to ensure the animals are moved safely.*

INTRODUCTION

The NY FACE program learned of the agricultural-related fatality on May 14th, 2003 through news media reports. The incident involved a 67-year-old male farm worker who was moving dairy cows within a freestall barn at the time of the incident. The farm worker was subsequently crushed by the cows and died as a result of his injuries.

A site visit was conducted on May 27th, 2003. The NY FACE investigator visited with the farm owner and inspected the fatality scene during the investigation. Additionally, the investigator reviewed the coroner's report and death certificate, and spoke with the investigating police agency.

The victim had worked on this particular farm for over 30 years. He had recently retired but continued to come in to help out on a part-time basis. The farm worker normally arrived at the farm around 5:00 a.m., bringing coffee and donuts to his fellow farm workers who were milking on the morning shift. He would then help move the cows within the barn.

The dairy farm milked approximately 1,000 cows and operated approximately 1,400 acres of cropland. The farm employed fourteen full-time employees, including the farm owner and his two sons.

INVESTIGATION

On the morning of May 8th, 2003, the farm worker arrived at the farm at 5:00 a.m. to help bring the last group of cows into the milking parlor. This particular farm utilized a freestall barn in which the cows were housed and fed, and had an attached milking parlor on one end of the barn. The farm milked the cows three times per day, with the early morning shift starting at 1:00 a.m. and ending around 7:00 a.m.

It is typical on larger farms for the milking herd to be divided into milking groups so that cows of similar milk production are in the same group, and therefore take similar amounts of time for milking. On the day of the incident, the employee began to assist with moving the last group of cows into the milking parlor for the morning milking. This last group was the lower producing group of cows.

As the employee came into the milking parlor from the freestall barn, he told one of the milkers that he was going to return to the freestall barn to move two of the cows that had gotten behind a gated section at the end of the barn. After approximately ten minutes the worker had not returned to the parlor, so one of the milkers went into the freestall barn to find him. The milker noticed that the victim was pressed into a corner between the barn wall and a gate with one of his arms over the top of the gate. He was in an upright position. The victim did not show any signs of consciousness and the milker immediately called the farm owner to the scene.

The area in which the incident occurred was approximately 12 feet square and was located in the barn at the end of a row of cow freestalls (see Figure 1). This area was bounded by an exterior wall of the barn on one side and moveable metal gates on the other three sides. Cows were not to enter that area under normal conditions and at the time of the incident, all of the gates were in a closed position creating an approximate 12-foot square pen. One of the three gates was slightly shorter than 12 feet allowing enough space for two cows to pass by the end of the gate into the small area. The rest of the herd had moved into the freestall area as expected. The cows are moved in this fashion three times each day; it was not common for cows to go past this gate into the small square area but up to the time of the incident, no one had been injured moving them out.

When the farm owner arrived, he listened to the victim for signs of breathing and felt for a pulse. Finding no signs of life, he immediately called 911 and received instructions from them to remove the victim from the gate and lay him outside of the barn. The cows had moved out of the enclosed area by the time the milker and farm owner moved the victim.

The emergency squad responded quickly to the scene but were unable to detect any signs of life. They transported the victim to the nearest hospital, performing CPR, but were unable to revive the victim. The victim was subsequently pronounced dead at the emergency room.

The farm owner stated that the victim did not have many external bruises on his body, which would have indicated being repeatedly attacked by an animal. The initial thought by responding officers was that bulls may have been within the dairy herd, but this was not true. It is theorized that one of the cows in this low milk producing group may have been in heat. One reason for low milk production is not being bred back, and there were certain cows in this group that had not been successfully bred. If this was the case, the second cow may have been trying to mount the first cow, which is a normal activity between cows in this condition. Because of the relatively small area involved, the victim may have been squeezed against the wall/gate corner during the incident. The cows in this particular barn were generally very calm animals. The physical environment in the barn was very soothing and relaxed, and no signs of agitation or aggressiveness were observed by the investigator while in the barn area. It is therefore the opinion of the investigator that the cows in question were not likely attacking the victim purposely; it is more likely that the cows were moving quickly and inadvertently crushed the victim between the wall and the gate. It is believed that after the victim was crushed against the side of the pen, he attempted to climb up the side of the gate but due to his injuries was unable to free himself.

It is important to note that the victim was of slight build and in a weakened condition due to pre-existing medical problems, weighing only 80 pounds at the time of the incident. This may have contributed to the severity of his crushing injuries. It was stated by the farm owner that because of the victim's age and his weakened condition, that he would move very slowly with the use of a cow moving cane when he worked with the cows. This may have contributed to his not being able to move out of the way during an incident such as this.

CAUSE OF DEATH

The cause of death was listed by the forensic pathologist as massive crushing injuries with multiple fractures of the ribs and pelvis, contusions and lacerations of the lungs and liver, and numerous internal hemorrhages.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: *Cow-handling facilities should be designed to minimize hazards and facilitate smooth animal travel.*

Discussion: In this barn layout, the main gate into the freestall area was 2 feet shorter than the width of the aisle so that it successfully closed the area into the freestalls. However, when it was opened at a 90-degree angle so that it would form another wall with the holding pen in the corner of the barn, there was a 2-foot plus gap along the edge of the wall that allowed access into the 12-foot square section. Ideally this gate should be properly sized so when in its open position, it would effectively require all animals to turn into the freestall section of the barn. Had this main gate been properly sized, the two cows would not have been able to pass into the 12 foot square enclosure.

Also, in any barn, modifications can be made to the travel path of dairy cows as they travel from their bedding area to the milking parlor and subsequently return to their bedding area. This travel path can be designed so contact with workers or other animals is minimized. In this situation, a different travel path may have been able to be devised so cows could return via a different path to the freestall area.

Recommendation #2: *Workers should not place themselves in the vicinity of cows within a small enclosed space.*

Discussion: In this situation, the farm worker entered a small 12-foot square enclosed space in the barn with two cows that had entered the area. Farm workers should consider opening gates and allowing cattle to leave on their own, rather than putting themselves in a small environment with the cattle and risk suffering an injury.

Recommendation #3: *When working around large animals that are exhibiting unusual behavior, workers should seek additional help to herd the animals in a safe fashion.*

Discussion: In this incident, the farm worker entered the small enclosed area by himself and attempted to move the animals out of the area, even though they were exhibiting unusual behavior by entering this area initially. Workers should seek assistance when working around animals in this situation such that they are herded out of the area in a safe and controlled manner.

Keywords: *agriculture, older worker, animals, dairy, cow/cattle*

The Fatality Assessment and Control (FACE) program is one of many workplace health and safety programs administered by the New York State Department of Health (NYS DOH). It is a research program designed to identify and study fatal occupational injuries. Under a cooperative agreement with the National Institute for Occupational Safety and Health (NIOSH), the NYS DOH FACE program collects information on occupational fatalities in New York State (excluding New York City) and targets specific types of fatalities for evaluation. NYS FACE investigators evaluate information from multiple sources. Findings are summarized in narrative reports that include recommendations for preventing similar events in the future. These recommendations are distributed to employers, workers, and other organizations interested in promoting workplace safety. The FACE program does not determine fault or legal liability associated with a fatal incident. Names of employers, victims and/or witnesses are not included in written investigative reports or other databases to protect the confidentiality of those who voluntarily participate in the program.

Additional information regarding the New York State FACE program can be obtained from:

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www.health.state.ny.us/nysdoh/face/face.htm

Figure 1. Diagram of Incident

