

Public Health
KY FACE 95KY05501
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Subject: Farmer Crushed in Hay Baler

SUMMARY

A 32-year-old farmer was killed when he was crushed in a hay baler. The victim was operating a tractor, towing a round baler in an open field with gradually sloping terrain. Although the victim had been doing farm work since he was young and had experience operating square balers, his experience with this particular round baler was limited. The victim was found caught in the baler headfirst up to his waist. There were no witnesses to the incident. The victim was pronounced dead at the scene. In order to prevent similar incidents, the KY FACE investigators concluded that:

- PTO's should be turned off before working on attached equipment
- farmers should not work alone when operating unfamiliar equipment

INTRODUCTION

On 27 June 1995, a 32-year-old farmer was fatally injured while operating a round hay baler. KY FACE was informed of the incident by a regional TV reporter. An investigation was then initiated. On 18 July 1995, two KY FACE investigators traveled to the scene to continue the investigation. The deputy coroner was interviewed and the coroner's report obtained. Police photos of the scene were reviewed and a photograph of the baler was obtained. FACE investigators went to the scene, accompanied by the deputy coroner, and photographs were taken of the site. The victim's brother and sister-in-law were interviewed via telephone. The name and phone number of the property owner were obtained and he was interviewed via telephone at a later time. Physical inspection of the tractor and baler was not possible.

The victim had been involved in farming all his life, working on a small family farm as well as working for others. He had previously worked with heavy equipment in the construction industry, but quit that job about 2 years ago when he injured his back. For about the last year and a half he had been employed full-time driving a tractor-trailer

truck and worked an additional 20 hours a week doing farm work. The incident occurred on property leased by the victim earlier in the spring for sharecropping hay. He had experience operating tractors and square balers. However, this particular tractor and round baler had been obtained only about one month prior to the incident.

INVESTIGATION

On the day of the incident, the victim was operating a 1994 Ford tractor model 5610 (HP 62) and using a New Holland round baler model 853 which was manufactured sometime after 1986. Both pieces of equipment had been obtained by the victim about one month prior to the incident and he had little experience operating them.

As was his usual practice, the victim was working alone in the field while baling hay. The weather that afternoon was warm and the victim was wearing a pair of jeans but no shirt. The field he was working on was open and gradually sloping. It had been mowed and raked a few days prior to the incident. Tracks indicated that he began baling on the east edge of the field and was completing the second row heading south, down the slope, when he stopped the tractor for an unknown reason. The PTO was left running at a high speed while the victim walked to the baler between the left rear tractor tire and the front of the baler.

The property owner arrived home about 3:45pm and could see the tractor in the field behind the house about 200 yards away; he could hear the tractor running at high RPM's. He went on about his normal activities, then later looked out to the field and noticed that the tractor still had not moved. He went out on his own tractor about 4:15pm to check on the situation and found the victim caught in the baler up to his waist. Upon arriving at the scene he called out to the victim, but there was no response. He went back to the house - about 500 feet away - and called 911. Rescue crews were dispatched after receiving the call at 4:40pm. Fire department personnel arrived first on the scene at about 5:10pm and one paramedic and one EMT from the local EMS arrived at 5:20pm. At 5:28pm the coroner was called and arrived at 6:02. The victim was found trapped in the baler between the wind guard and the pickup, which was in the lowered position. During the extrication later that day, the baler was emptied and was found to be approximately 1/3 to 1/2 full of hay at that point. Time of death is recorded as 3:30pm on the coroner's report.

Both pieces of equipment involved in the incident had been stolen by the victim on separate occasions. The victim obtained the 1994 Ford tractor on 21 April 1995 and photographs taken by police show that it appeared to be well maintained. The New Holland round baler was obtained about one month prior to the incident; balers of this model (853) were manufactured between 1986 and 1992, weigh approximately 4,485 pounds, and produce round bales weighing 900-1,200 pounds. Restitution was made for the baler and the operator's manual was obtained at that time. According to the victim's sister-in-law, he read the manual and she also reminded him of the potential hazards of the PTO.

Because there were no witnesses to the incident, it is not known why the victim stopped the tractor at that time, leaving the PTO engaged. The victim was found caught in the baler near the twine arm, so witnesses to the extrication speculated that he may have been attempting to untangle twine. The victim was not wearing a shirt when he was found and there was no evidence of a shirt or other clothing being caught in the baler.

Toxicology results were negative for blood alcohol.

CAUSE OF DEATH

Cause of death as stated on the coroner's report was compression asphyxia due to hay baler accident.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: PTO's should be turned off before working on attached equipment.

Discussion #1: In this incident the operator stopped the tractor and left the PTO running at a high speed when he went to the front of the baler to check the equipment, possibly attempting to untangle twine in the baler. When coming into contact with machinery attached to a tractor, the PTO should be shut off to reduce the risk of being injured by moving parts. In this case, the victim reportedly read the operator's manual and was made aware of the potential hazards of the PTO. In addition, the operator's manual for this model of round baler shows safety decals on the equipment stating that the engine should be turned off before coming into contact or attempting to adjust the machinery in any way. The baler in this case was not available for inspection so it is not known if these decals were still present and readable.

Recommendation #2: Farmers should not work alone when operating unfamiliar equipment.

Discussion #2: Machinery is the leading cause of fatal injury on a farm and the risk of injury is increased if the farmer is inexperienced in operating the equipment. Working alone in the field can further increase the hazards of operating farm machinery. Having another worker available to assist during initial operations with new equipment may provide additional safety. In this incident, the victim was working alone on two pieces of unfamiliar equipment; another worker could have assisted with operating the machinery, possibly averting the tragedy, or could have obtained medical help for the victim in a more timely manner.