

## **FINAL KY FACE #95KY08801**

Date: 30 October 1995

### **Subject: Farm Worker Killed in Tractor Rollover on Public Roadway**

#### **SUMMARY**

A 21-year-old farm worker was killed in a tractor rollover incident. The victim was driving a tractor on a secondary public road, pulling an unloaded 18-foot flatbed trailer, when he lost control. After the tractor wheels went off the right side of the road, the victim overcorrected, which caused the vehicle to become unbalanced; he was thrown from the tractor as it overturned into a ditch. It was not equipped with an appropriate rollover protective structure (ROPS) or a seatbelt. The unit, which included a canopy, had been installed to provide shade on summer days and cover in occasional downpours, not to protect the operator in the event of a rollover. The victim's employer was the only eyewitness to the incident. The victim was pronounced dead at the scene by the county coroner. In order to prevent similar incidents, KY FACE investigators recommend that:

- To provide the best protection for operators, tractors should be retrofitted with the appropriate rollover protective structures, installed by the equipment manufacturer or an authorized dealer.
- Operator restraint systems (seatbelts) should also be installed by the equipment manufacturer or an authorized dealer.
- Employers should provide safety training to employees, including information regarding potential hazards and safe operation of equipment.

#### **INTRODUCTION**

On 9 September 1995, KY FACE was notified of the death a 21-year-old farm worker which occurred on 8 September. An investigation was immediately initiated. The case was discussed by telephone with the county coroner, and on 20 September three FACE investigators traveled to the scene to probe further into the case. Interviews with the coroner and the county sheriff responding to the incident were conducted. Along with the sheriff, the investigators traveled to the site of the incident and to the employer's farm to examine the tractor and trailer. The eyewitness to the scene could not be reached for an interview the day of the investigation, but was later interviewed by telephone. Copies of the state police report and the coroner's report were obtained and reviewed.

#### **INVESTIGATION**

The victim had been involved in farming most of his life on the family farm. He had been hired as a part-time worker several months prior to the incident by a neighboring farmer who raised tobacco, cattle, and pigs. His experience working for the farmer during the summer had included operating the tractor that was involved in the incident. The victim's employer had been a farmer

all of his life and employed several people to work for him on a part-time basis, depending on the workload. The work routine on that day was not unusual although the victim had expressed to the employer in the morning that he had a stomachache, but felt well enough that he wanted to work.

The tractor, manufactured in 1976, was a Ford Model 3600 with a gross weight of approximately 4000 pounds and a 40hp pto. It had spread front wheels and 3/4 fluid-filled rear tires, but no seatbelt and no counterweights. A steel canopy structure resembling a ROPS was attached to the tractor. The owner/employer had taken the structure off of a similar tractor that his son owned and attached it to this particular tractor after some modification. An additional hole had been drilled in each of the steel plates at the base in order to make it fit this tractor. Its purpose, according to the owner, was to protect the operator from exposure to sun and rain and was not meant to serve as a ROPS. Attached to the tractor was an 18-foot dual-axle trailer, which the victim had been using to haul the freshly cut tobacco earlier in the day; at the time of the incident the trailer was empty.

At 8:00 on the morning of the incident, the victim began working for the farmer, who was harvesting his tobacco crop. The weather was warm and dry. At approximately 1:00 pm, after unloading the 18-foot dual-axle trailer which was attached to the tractor, the victim began driving along a secondary road for the return trip to the field. The 17-foot-wide road was paved and fairly smooth. It was bordered on the right by a ditch that was about 20 inches deep with a 30-degree slope. A fenceline ran parallel to the ditch, 9 feet 7 inches from the road.

The employer, who was following behind the victim in a pick-up truck, stated that he was traveling about 10-15 mph. Having just descended a small hill, the tractor began to swerve and then left the roadway briefly on the right. The slope at the point where the vehicle left the roadway was minimal (approximately 2 degrees). As evidenced by skid marks on the road, the victim turned sharply to the left to bring the tractor back onto the roadway. When he did the tractor momentum caused it to roll over to the right and land in the ditch. The victim was thrown from the tractor before it rolled over on him, crushing his skull.

Following the incident, the tractor was found to be in fourth gear. The canopy structure had broken off during the incident and had provided no protection to the operator in the rollover.

The farmer who employed the victim was following him and witnessed the incident. He called the emergency medical service (EMS) at 1:37 pm; EMS personnel arrived at 1:57 and found the victim unresponsive, with no vital signs. The county coroner was called at 2:30. He arrived and pronounced the victim dead at 2:45 pm. The county sheriff and state police were also called to the scene.

## **CAUSE OF DEATH**

The coroner listed the cause of death as massive head injury.

## **RECOMMENDATIONS/DISCUSSION**

**Recommendation #1:** To provide the best protection for operators, tractors should be retrofitted with the appropriate rollover protective structure (ROPS), installed by the equipment manufacturer or an authorized dealer.

**Discussion #1:** In this case, although the canopy structure resembled a ROPS, its purpose was reportedly for protection from sun and rain and did not provide any protection for the operator in this rollover incident. A ROPS kit is available for this model tractor and could be installed without any modification of the structure or the tractor. The appropriate ROPS with a canopy could then serve the dual purpose of providing protection for the operator during a rollover as well as offering a shield from environmental exposures.

**Recommendation #2:** Operator restraint systems (seatbelts) should also be installed by the equipment manufacturer or an authorized dealer.

**Discussion #2:** The tractor involved in this incident was not equipped with a seatbelt. Ideally, ROPS and seatbelts should be installed simultaneously by an authorized dealer or the tractor manufacturer. A ROPS cannot be expected to protect a tractor operator in the event of a rollover without a seatbelt to hold the operator in the ROPS-protected zone.

**Recommendation #3:** Employers should provide safety training to workers, including information regarding potential hazards and safe operation of equipment.

**Discussion #3:** Farming often involves working with potentially dangerous equipment. In order to ensure a safe environment, it is important that employers provide training to employees about hazardous situations that could occur during the course of work. Instructions for operating equipment safely, such as downshifting and reducing speed when descending a hill as in this case, can help workers to avoid injury.