

## **FACE INVESTIGATION**

### **SUBJECT: Farm Worker Dies when he Falls from Tractor Seat**

**SUMMARY:** A 59 year-old farm worker (the victim) fell from the farm tractor he was operating and died from injuries he received in the fall. He was towing a manure spreader to a field on the dairy farm where he was employed, and may have had a medical emergency that caused him to stop the tractor prior to his fall. The tractor, which was not equipped with a cab or rollover protection structure (ROPS), was left running in neutral. The farm owner went to the field to investigate when the victim did not return to the farmyard as expected. He found the victim lying in blood under the drawbar of the manure spreader and immediately called for emergency services. EMS responders and the sheriff arrived within seven minutes and pulled the victim from beneath the manure spreader. The coroner was called, and pronounced the victim dead at the scene. The FACE investigator concluded that to help prevent similar occurrences, farmers should:

- **only use tractors that are fully equipped with an operator restraint system and rollover protective structures (ROPS).**
- **seek and follow medical advice and take precautions to prevent falls if they have medical conditions that could cause loss of balance.**

### **INTRODUCTION:**

On October 31, 2003, a 59-year-old male farm worker was pronounced dead of injuries he received when he fell from a tractor at the dairy farm where he was employed. The Wisconsin FACE field investigator learned of the incident through the death certificate on January 13, 2004. The FACE investigator reviewed the death certificate and the coroner and sheriff reports, and interviewed family members on March 2, 2004. The farm owner was not available for interview.

This incident occurred at a dairy farm where the victim had been employed for seven years. He had grown up on a dairy farm, and learned to operate farm machines through on-the-job experience. He also had experience in construction and as a security guard, but preferred farming. His wife often assisted in the fieldwork by driving the tractor. The victim had no previous history of serious injuries, but his medical history included at least eight years chronic illness that could cause sudden episodes of weakness or unconsciousness. He did not require adaptive equipment to get on or off the tractor or other farm equipment. His physician had warned him about the hazards of operating equipment when he wasn't feeling well, so he usually carried a cell phone to contact EMS if needed. It is unknown if he had the phone with him at the time of the incident.

The farm owner operated a 300-cow dairy farm. He employed one person to help with the milking chores, and hired the victim to do the fieldwork. They worked together when the task required it, but usually worked independently at their assigned jobs. The farmer raised oats, corn

and hay for the dairy herd in fields that were in the vicinity of the farmyard.

### **INVESTIGATION:**

On the day of the incident, the victim was driving a tractor and towing a loaded manure spreader to a field about one-fourth mile from the farmyard. He left the farmyard around 4:00 P.M. and started down the road to the field. Although there were no witnesses to the incident, tracks from the tractor indicate the victim drove the tractor into a field, and put the transmission in neutral and left the engine running. He may have had a medical emergency that caused him to fall from the tractor seat, and roll towards the manure spreader. The coroner determined the injuries were due to the fall; he had not been run over. He ended up face down with his head under the drawbar of the manure spreader and his feet extending toward the tractor. The tractor was not equipped with a cab or rollover protection structure (ROPS).

When the victim didn't return by 4:30 as expected, the farm owner thought there may have been equipment problems so he went to look for him. While driving down the road to the field, he saw the tractor and manure spreader pulled off the road, with the victim's legs sticking out from under the spreader. He found the victim lying in blood under the drawbar of the manure spreader and immediately called for emergency services. EMS responders and the sheriff arrived within seven minutes, then pulled the victim from beneath the manure spreader. The tractor was still running when responders arrived. The coroner was called, and pronounced the victim dead at the scene.

**CAUSE OF DEATH:** The death certificate listed the cause of death as massive head and neck trauma.

### **RECOMMENDATIONS/DISCUSSION**

#### **Recommendation #1: Farmers should only use tractors that are fully equipped with an operator restraint system and rollover protective structures (ROPS)**

Discussion: The tractor in this incident was not equipped with a seatbelt or ROPS when it was manufactured at least 30 years ago. A retrofit system for the tractor in this incident is available from equipment dealers for about \$1500. An operator restraint system should always be used with ROPS to keep the operator within the zone of protection in case of an overturn or other event that could cause the operator to be ejected from the operator seat. In this incident, the victim had a medical condition that may have caused him to lose consciousness and fall from the seat. A cab or operator restraint system would have prevented him from falling.

#### **Recommendation #2: Farmers should seek and follow medical advice and take precautions to prevent falls if they have medical conditions that could cause a loss of balance.**

Discussion: Some medical conditions can impair a worker's ability to stay alert and responsive to hazards, or to maintain balance. Farmers should inform their medical providers of the scope of activities they perform, and heed the advice they receive about operating machinery. Technical assistance for farmers who must adapt to physical limitations is also available from agricultural engineers, state vocational rehabilitation counselors, agricultural equipment and supply manufacturers, and Extension programs that serve people with physical disabilities.