Farm Worker Dies After Tractor Rolls and She is Pinned Under the Tractor Tire

SUMMARY:
An 80-year-old female farm worker (the victim) died after she was pinned under a tractor tire. She had been driving a tractor with front-end loader from a soybean field to the storage shed in the farmyard when she apparently stopped in the farm lane, put the tractor in neutral, and lowered the tractor bucket loader to brake the tractor. Although the event was unwitnessed, apparently she got off the tractor and was standing in front of a rear tire when the tractor began to roll down the slight incline of the lane, and pinned the victim under the tire. About one-half hour after the victim left the field, the victim's husband (the farmer) was driving a tractor from the field to the farmyard when he saw the victim's tractor standing in the farm lane. He then saw the victim lying on the ground underneath the tire. He backed the tractor off her body, removed blood and field debris from her mouth and attempted CPR. She did not respond, so he placed her in the bucket, drove to the farmyard to call 911, and resumed his CPR efforts. EMS responders arrived, the coroner was called and the victim was pronounced dead at the scene. The FACE investigator concluded that, to prevent similar occurrences, farmers and farm workers should:

- ***shift the tractor into park, set the brakes and turn off the engine before dismounting from the tractor. For tractors without a park position, farmers should shift into neutral, set the brakes and turn off the engine before dismounting.***
- ***seek and use the services of organizations and agencies that provide technical assistance and/or adaptive equipment to agricultural workers with disabling conditions.***

INTRODUCTION:
On May 20, 1995, an 80-year-old female farm worker died after being pinned under a tractor tire. The Wisconsin FACE field investigator was notified by the Wisconsin Department of Industry, Labor & Human Relations, Workers Compensation Division, on June 16, 1995. On November 2, 1995, the field investigator visited the farm and met with the farmer. The FACE investigator also obtained the death certificate and the sheriff's report.

The farmer and his wife (the victim) had owned and operated the 240-acre farm for approximately 50 years, raising hay, corn and soybeans. The farmer's son also worked part-time on the farm, but was not working at the time of the incident. There were no written safety policies or procedures for the farm activities. The victim had participated in the farm operation for most of her life and had learned farming through on-the-job experience. She had operated all of the tractors used on the farm, and was experienced with the tractor involved in the incident. The victim had moderate to severe knee and back pain for several years before the incident.

INVESTIGATION:
The farm property had storage buildings for tractors and equipment near the home, with the crop fields surrounding the farmyard and farmhouse. An unpaved lane was used to travel between the fields and the farmyard area. Field equipment and tractors were usually kept in sheds when not in use. The weather was clear and dry on the day of the incident, with moderate, gusty wind.

The farmer and the victim owned all of the equipment used to plant and harvest crops. They had purchased the tractor and front-end loader involved in the incident as new equipment 25 years

ago, and had not modified the equipment since its purchase. The tractor had separate operating brakes for each rear wheel, which were in safe operating condition at the time of the incident. The location of the brake pedals was such that the victim had to lean and bend sideways to set or release the brake. This activity was uncomfortable for the victim, so when parking the tractor on level or slightly sloped surfaces, she customarily held the tractor in place by applying the brakes quickly while the tractor was moving forward, "skidding" the rear tires which formed a small mound of soil in front of the tires. Then, the bucket would be lowered to the ground to hold the tractor in place.

On the day of the incident, the farmer was planting soybeans in a field about one-fourth mile from the farmyard. His wife helped by bringing supplies and equipment to and from the field, either walking or using the tractor with the bucket to carry the supplies. Around 6:30 P.M., she told him that she would be returning the tractor to the farmyard. She stopped the tractor several times to get off and pick up empty soybean bags that were being blown around in the field, and continued on the lane toward the farmyard. Although the incident was unwitnessed, the victim then apparently stopped the tractor by skidding a mound of soil against the tires, then lowering the bucket to hold the tractor in place. With the gear in neutral, she left the engine running, got off the tractor, and was positioned near or in front of the rear tire. The tractor rolled forward, and she was pinned against the ground at the chest and abdomen.

About 45 minutes after the victim left the field, the farmer was driving down the lane on his tractor and saw the victim lying in the farm lane, pinned by the tractor tire. He backed the tractor off her body, removed blood and field debris from her mouth and attempted CPR. She did not respond, so he placed her in the bucket, drove to the farmyard and called 911, and resumed his CPR efforts. EMS responders arrived, the coroner was called and the victim was pronounced dead at the scene.

CAUSE OF DEATH: The coroner noted the cause of death as massive head, neck and chest trauma.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Farm tractor operators should shift the tractor into park, set the brakes and turn off the engine before dismounting from the tractor. For tractors without a park position, farmers should shift into neutral, set the brakes and turn off the engine before dismounting.

Discussion: Tractors will roll downhill if parked on an incline without an effective braking device, and the vibration created by a running engine may increase the possibility of initiating the rolling motion. Tractor operators can prevent tractors from rolling by shifting into park if possible, setting the brakes and turning off the engine before dismounting. In this incident, the location of the brake pedals required the operator to bend sideways in the seat and reach down, an uncomfortable position for the victim. Therefore, she parked the tractor by skidding the rear wheels to create a ridge of soil against the tires, then lowered the bucket to hold the tractor in place.

Recommendation #2: Farmers and farm workers with functional limitations caused by illness or injury should seek and use the services of organizations and agencies that provide technical assistance and/or adaptive equipment to agricultural workers with disabling conditions.

Discussion: Farm machines, including tractors, are designed and manufactured for use by individuals with full functional capacity. Physically disabling conditions, such as illness or injury, can impair a farm worker's ability to operate a machine safely when carrying out his or her work duties. Technical assistance in designing and fitting adaptive equipment is available from agricultural safety specialists, including agricultural engineers, state vocational rehabilitation counselors, agricultural equipment and supply manufacturers, and Extension programs that serve people with physical disabilities. This incident might have been prevented if the brake pedals of the tractor had been adapted to be comfortably accessible to the victim.