

DATE: March 20, 1996

FROM: Minnesota Fatality Assessment and Control Evaluation (MN FACE) Program
Minnesota Department of Health

SUBJECT: MN FACE Investigation 96MN08801
Farmer Dies After Tractor He Was Driving Rolled Over On Him

SUMMARY

An 62-year-old farmer (victim) died of injuries he sustained when the tractor he was driving overturned. On the day of the incident, the victim was driving a farm tractor on a blacktop surfaced public road. The tractor was not equipped with a rollover protective structure or a seat belt. While the victim drove north on the road, the right wheels of the tractor gradually left the surface of the road. The right side wheels entered the ditch on the east side of the road and the tractor overturned. A resident of the area was about to drive onto the road and noticed the victim driving the tractor shortly before the incident. Moments later she noticed a cloud of dust rising from the ditch. She drove to the scene and discovered the victim beneath the tractor. She returned to her residence and placed a call to emergency rescue personnel. They arrived at the scene shortly after being notified and pronounced the victim dead at the scene. MN FACE investigators concluded that to reduce the likelihood of similar occurrences, the following guidelines should be followed:

- all tractors should be equipped with a rollover protective structure and a seat belt;
and
- operators of tractors should maintain safe operating speeds at all times.

INTRODUCTION

On December 12, 1996, MN FACE investigators were notified of a farm work-related fatality that occurred on September 14, 1996. The county sheriff's department was contacted and releasable information obtained. Information obtained included a copy of their report of the incident and copies of their photos of the incident site. A site investigation was not conducted by MN FACE investigators. During MN FACE investigations, incident information is obtained from a variety of sources such as law enforcement agencies, county coroners and medical examiners, employers, coworkers and family

members.

INVESTIGATION

On the day of the incident, the victim was driving a farm tractor on a blacktop surfaced public road. The tractor was approximately 25 years old and was not equipped with a rollover protective structure or a seat belt. It had a wide front wheel configuration and did not have dual wheels on either rear axle. A mower was attached to the tractor's three-point hitch at the time of the incident. The tractor was capable of traveling at a maximum speed of approximately 16-18 miles per hour. Since the incident was not witnessed, the approximate speed of the tractor at the time of the rollover was not known.

While the victim drove north on the road, the right wheels of the tractor gradually left the surface of the road. Tire tracks on the shoulder of the road indicated that the victim may have been distracted and did not realize that the tractor was gradually entering the ditch. The right side wheels entered the ditch on the east side of the road and the tractor overturned and came to rest upside down. The victim sustained fatal head injuries during the rollover and was pinned beneath the right rear wheel.

A rural resident of the area was about to drive onto the road and noticed the victim driving the tractor shortly before the incident. Moments later after the resident drove onto the road, she noticed a cloud of dust rising from the ditch. She did not see the rollover occur but drove to the scene of the incident and discovered the victim beneath the tractor. She returned to her residence and placed a call to emergency rescue personnel. They arrived shortly after being notified and pronounced the victim dead at the scene.

CAUSE OF DEATH

The cause of death listed on the death certificate was multiple chest trauma due to tractor rollover.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: All tractors should be equipped with a rollover protective structure and a seat belt.

Discussion: Preventing death and serious injury to tractor operators during tractor rollovers requires the use of a rollover protective structure and a seat belt. These structures, either a roll-bar frame or an

enclosed roll-protective cab, are designed to withstand the dynamic forces acting on them during a rollover. In addition, seat belt use is necessary to ensure that the operator remains within the "zone of protection" provided by the rollover protective structure. Government regulations require that all tractors built after October 25, 1976, and used by employees of a farm owner must be equipped with a rollover protective structure and a seat belt. Many older tractors are in use on family farms and do not have, nor are they required by government regulation to have, such structures to protect their operators in case of a rollover. All older tractors should be fitted with a properly designed, manufactured, and installed rollover protective structure and seat belt. If the tractor involved in this incident had been fitted with a rollover protective structure and a seat belt, and the seat belt had been in use, this fatality might have been prevented.

Recommendation #2: Operators of tractors should maintain safe operating speeds at all times.

Discussion: Tractors should always be driven at speeds which allow the operator to maintain complete control of the tractor. Operators need to maintain control at all times to avoid all types of accidents including rollovers. This requires that the tractor speed be kept slow enough to allow the operator to safely react to unexpected situations and hazards. Safe operating speeds may vary slightly between operators because of such factors as the operator's age, years of experience, and familiarity with the specific tractor or farm machine being operated. Farm youths should maintain slower operating speeds because of their overall lack of experience with all types of motorized vehicles.

REFERENCES

1. Office of the Federal Register: Code of Federal Regulations, Labor, 29 CFR Part 1928.51 (b), U.S. Department of Labor, Occupational Safety and Health Administration, Washington, D.C., April 25, 1975.

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