

REPORT#: 18MI243

REPORT DATE: 6/24/20

INCIDENT HIGHLIGHTS



DATE:

Summer 2018



TIME:

1:59 p.m.



VICTIM:

Farmer in his 70s



INDUSTRY/NAICS CODE:

Agriculture/11



EMPLOYER:

Self-employed farmer



SAFETY & TRAINING:

College, Extension classes



SCENE:

Roadway intersection



LOCATION:

Michigan



EVENT TYPE:

Motor Vehicle Crash

Farmer Driving a Pickup Truck was Struck When a Pickup Ran a Stop Sign

SUMMARY

In summer 2018, a male farmer in his 70s was driving a farm-owned pickup truck (Pickup #2) southbound on a dry, blacktop chip-sealed asphalt two-lane road with a speed limit of 55 mph when his vehicle was hit in an intersection by a westbound pickup truck (Pickup #1). The east-west road was a similarly constructed two-lane, 55 mph roadway. The north-south road had the right of way. Stop signs were positioned at the intersection on east-west roadway; the stop signs had affixed signage indicating crossroad traffic does not stop. The east-west road also had advance warning stop signs with the name of the north-south road affixed below. The westbound pickup truck (Pickup #1) entered the intersection without stopping and struck the decedent's pickup truck (Pickup #2) on the driver's side..... [READ THE FULL REPORT](#)> (p.3)

CONTRIBUTING FACTORS

Key contributing factors identified in this investigation include:

- Driver not following traffic rules striking decedent's pickup truck
- Driver ability to see oncoming traffic at intersection obscured by corn

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RECOMMENDATIONS

MIFACE investigators concluded that, to help prevent similar occurrences:

- Vehicle drivers need to comply with traffic rules and warnings
- State and local road authorities should periodically evaluate rural roadway traffic data to determine if existing road signage is appropriate

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MICHIGAN

State **FACE** Program

Fatality Assessment & Control Evaluation

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Michigan Fatality Assessment and Control Evaluation (FACE) Program

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SUMMARY

In summer 2018, a male farmer in his 70s was driving a farm-owned pickup truck (Pickup #2) southbound on a dry, blacktop chip-sealed asphalt two-lane road with a speed limit of 55 mph when his vehicle was hit in an intersection by a westbound pickup truck (Pickup #1). The east-west road was a similarly constructed two-lane, 55 mph roadway. The north-south road had the right of way. Stop signs were positioned at the intersection on east-west roadway; the stop signs had affixed signage indicating crossroad traffic does not stop. The east-west road also had advance warning stop signs with the name of the north-south road affixed below. The westbound pickup truck (Pickup #1) entered the intersection without stopping and struck the decedent's pickup truck (Pickup #2) on the driver's side. Both vehicles came to rest in a nearby farm field. The decedent was wearing his seat belt/shoulder harness. It was unclear to emergency responders if Pickup #1's driver was wearing his seat belt/shoulder harness. Emergency response was summoned by passing motorists. The decedent was declared dead at the scene.

INTRODUCTION

In summer 2018, a male farmer in his 70s was driving a farm-owned pickup truck (Pickup #2) southbound on a dry, blacktop chip-sealed asphalt two-lane road with a speed limit of 55 mph when his vehicle was hit in an intersection by a westbound pickup truck (Pickup #1). MIFACE learned of this incident from a newspaper clipping. MIFACE personnel contacted the decedent's spouse who agreed to be interviewed. MIFACE reviewed the death certificate, and sheriff and medical examiner reports during the writing of this report. Pictures used in the report are courtesy of the responding sheriff and ones taken during the site visit by the MIFACE investigator. MIFACE has removed identifying information from the photographs.

EMPLOYERS

The decedent and his brother co-owned an 800-acre farm, growing soybeans, wheat and corn. The decedent's son and nephew both worked on the farm and his sister-in-law was the bookkeeper. The decedent and his brother had previously worked on their father's dairy farm. When the decedent's father died, his sons assumed the farm operation. In 1999, the brothers sold the cows and just planted crops. They harvested all of their fields and trucked their own product to storage facilities.

WRITTEN SAFETY PROGRAMS and TRAINING

The farm operation did not have a written farm health and safety plan. His wife described to the MIFACE investigator the decedent's love of learning; he attended seminars held by various farming-oriented organizations including Michigan Farm Bureau and MSU Extension. He had attended pesticide training classes to receive his certified pesticide applicator license. His son was also in the process to receive his pesticide applicator license. His spouse gave several examples of the decedent providing training to others to operate the equipment. For example, the decedent instructed his wife how to operate the controls on various pieces of equipment so he could perform maintenance, such as raising the harvest head and raising the bucket on the front-end loader.

WORKER INFORMATION

His wife indicated the decedent had assumed more work responsibilities due to the declining health of his brother. His typical workday was 12 hours with a one-hour lunch break. He typically started his day at 6:00a.m, worked until noon, had

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lunch and then worked from 1:00 p.m. – 6:00 p.m. The decedent drove the farm-owned pickup truck for farm errands and as his personal vehicle.

INCIDENT SCENE



Photo 1. Looking west, approaching intersection. Stop sign noting cross road traffic does not stop



Photo 2. Looking west, advanced warning stop sign and additional roadway signage

The incident scene was a roadway intersection. The north-south and east-west roadways were dry, two-lane blacktop chip-sealed asphalt with posted speed limits of 55 mph. The north-south roadway had the right of way. The east-west roadway had a stop sign at the intersection with affixed signage indicating crossroad traffic does not stop (Photo 1). Additionally, an advanced warning stop sign with the name of the intersecting road was positioned west of the intersection on the north side of the westbound roadway (Photo 2). Westbound traffic, as it neared the intersection, had corn fields on each side; the visibility of the upcoming intersection and signage was not obscured by the crops. The corn fields interfered with both the north/south and westbound drivers to identify traffic approaching the intersection.

Traveling westbound, just beyond the incident intersection was another north-south road. At the intersection, the east-west road had a red flashing light (Photo 3).

WEATHER

The weather at the time of the incident was not a factor: fair skies, temperature in the mid-70s with south winds in the high teen mph range. [[Weather Underground](#)].

INVESTIGATION

On the morning of the incident, the decedent worked with his nephew. When he left the farm, he did not tell his son or his nephew what he would be doing after lunch. He had lunch at home with his wife, and then left without telling her his afternoon work plans.

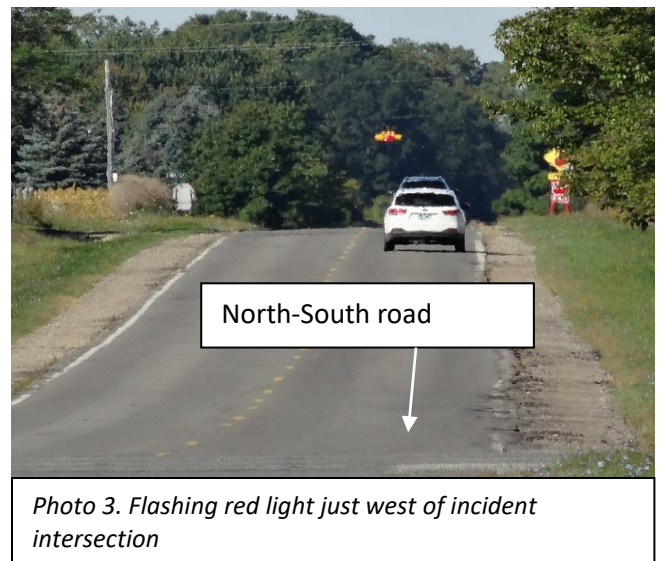


Photo 3. Flashing red light just west of incident intersection

For purposes of this report. The pickup driver traveling westbound will be identified as driving Pickup #1. The decedent, traveling southbound was driving Pickup #2.

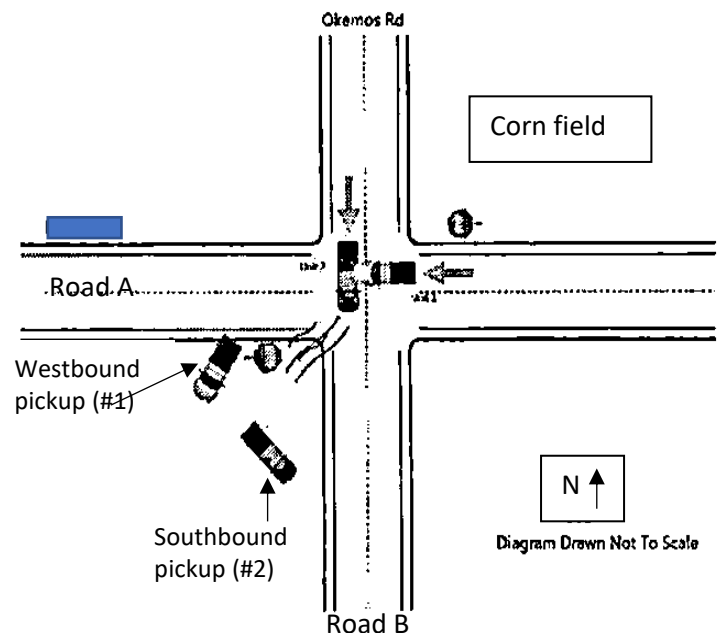
When the decedent was at work, his wife described him as “at work”, no down time, no breaks taken, “always really working”. She described the following reasons he may have been “at work”, driving on the road on the day of the incident:

1. Later, either the day of the incident or later that week (time all ran together for her then), a tire store called and informed her that “the tire is ready”. When she received the tire, it was the tire for their personal recreational 5th wheeler. Although the farm did not own it like the farm owned Pickup #2, the decedent and his wife used the 5th wheeler for both business and pleasure; to house them when they went to farm shows and on vacations. The spouse indicated the decedent would conduct business at the farm shows, bought “stuff” for the farm, contacted and set up contractors to perform work on the farm, etc. They also used the 5th wheeler as housing in another state and to stay at another Michigan city when they would take antique tractors to farm shows.
2. A financial firm, where they had their crop insurance was located near the incident intersection. The decedent was required to report business information, for example crop yields to the firm. He normally interacted with the financial firm alone and she was not sure of everything he discussed with the financial firm agents.
3. There was a farm supply store nearby. The decedent did most of his own repairs and carried his tools in his truck, both in the cab and in the pickup bed in a toolbox. He shopped frequently at the farm supply store for supplies.
4. The decedent may have been “Road Farming”. His wife described this activity as looking at other farmer’s fields and seeing how crops look, harvesting schedules, basically “opposition research” She said it was a common practice among farmers in the area.

Both the decedent and the driver of Pickup 2 were the lone occupants of their vehicles.

The decedent was traveling southbound in Pickup #2 on Road B. After cresting a slight hill, the decedent continued southbound. Due to the height of the corn, his vision to detect oncoming westbound traffic was compromised until his pickup was very close to the intersection.

Pickup 1 was traveling westbound on Road A, approaching the intersection. Per witnesses who were traveling northbound on Road B, Pickup #1’s driver did not apply the vehicle brakes, thus did not stop at the intersection (Drawing 1).



Drawing 1. Sheriff crash report drawing. MIFACE modified to remove road names and identify vehicles to be consistent with this report.

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Pickup #1 continued through the stop sign. Both drivers applied their brakes as evidenced by skid marks in the roadway. Pickup #1 T-boned (struck the driver's side) the decedent's vehicle. Both trucks continued southwest off the roadway over a curb, striking the Road A eastbound stop sign, travelled through a wooden fence and into a cow pasture. Vehicle debris, tools and other items were strewn about the pasture in which the trucks came to rest.

A motorist traveling northbound on Road B witnessed the incident and called emergency response. Several motorists pulled over to the road shoulder to assist both drivers. A police department witness statement indicated that when Pickup #1's driver was asked about how fast he was traveling, the driver indicated the speed limit. Due to the age of both pickup trucks, neither was equipped with a data event recorder. The speed of Pickup #1 could not be calculated by the responding sheriff department because of the secondary impacts (road curb, fence/fence post).

The decedent wearing a seat belt/shoulder harness. Per the police report, it was unclear if Pickup #1's driver was wearing a lap belt/shoulder harness. Pickup #1's driver was transported to a local hospital for surgical repair of injuries sustained at the time of the crash. The farmer was pronounced deceased at the scene.

Pickup #1's driver told the responding sheriff that he did not have a recollection of events leading to the crash. When responding sheriff asked Pickup #1's driver if he had observed the stop sign, the driver indicated that he didn't know there was a stop sign at the intersection. The responding sheriff asked him if he was using his cell phone at the time of the collision. He stated he didn't believe he had been and did not permit the responding sheriff to examine his mobile phone.



Photo 4. Flashing red light installed, 4-way stop indicated at intersection stop sign

Pickup driver 1 bloodwork at the hospital was negative for alcohol and drugs of abuse.

After the incident, the intersection was changed from a two-way stop on the east-west roadway to a four-way (all) stop. A flashing red light was also installed (Photo 4).

MIOSHA Citations

MIOSHA did not conduct a compliance investigation.

CAUSE OF DEATH

The death certificate listed the cause of death as multiple blunt force injuries due to or as a consequence of a motor vehicle collision. Post-mortem toxicology was negative for alcohol, illegal and prescription drugs.

CONTRIBUTING FACTORS

Occupational injuries and fatalities are often the result of one or more contributing factors or key events in a larger sequence of events that ultimately result in the injury or fatality. The following hazards were identified as key contributing factors in this incident:

- Driver not following traffic rules striking decedent's pickup truck
- Driver ability to see oncoming traffic at intersection obscured by corn

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Vehicle drivers need to comply with traffic rules and warnings.

Discussion: The driver of Pickup 1 could not recall his actions prior to the crash. The responding sheriff entered Unknown in the "Driver Distracted By" box on the crash report.

As defined in the *Overview of the National Highway Traffic Safety Administration's (NHTSA) Driver Distraction Program* (Report No. DOT HS 811 299), distraction is a specific type of inattention that occurs when drivers divert their attention from the driving task to focus on some other activity instead. The document describes distraction as a subset of inattention (which also includes fatigue, and physical and emotional conditions of the driver). NHTSA defines distracted driving as "any activity that diverts attention from driving, including talking or texting on your phone, eating and drinking, talking to people in your vehicle, fiddling with the stereo, entertainment or navigation system—anything that takes your attention away from the task of safe driving."

The east-west roadway approaching the intersection was well marked with a warning sign showing a stop sign ahead and the stop sign indicating that the north-south traffic did not stop. The advanced warning stop sign for the intersection had the road name under it as recommended by the Federal Highway Administration *Manual for Selecting Safety Improvements on High Risk Rural Roads* for unsignalized rural road intersections. The yellow advanced warning sign and the intersection stop sign were not obscured from the driver's view.

Pickup #1's driver may have been performing an activity in the car leading to distraction; the driver self-identified both at the scene and after his surgery that he did not see the stop sign. It is unknown if Pickup #1's driver had his attention drawn to the flashing red light just west of the intersection rather than the warning sign/stop sign at the intersection. A possible, but unlikely sequence of events was that Pickup #1's driver fell asleep as he approached the intersection.

It is imperative for all drivers to stay attentive, follow traffic rules and warnings and minimize distractions while driving to ensure that they do not place themselves or others at risk.

Recommendation 2: State and local road authorities should periodically evaluate rural roadway traffic data to determine if existing road signage is appropriate.

Discussion: In the United States, over the last several years an average of one-quarter of traffic fatalities and roughly half of all traffic injuries are attributed to intersections. In 2012, 19 percent of the US population lived in rural areas, but rural road fatalities accounted for 54 percent of all fatalities. Although local authorities responsible for road repair/improvement may have a lack of funding as well as a lack of technical expertise to identify and select safety

treatments, there can also be a lack of understanding of which roadway and crash data are important to capture and how to go about the collection and evaluation process. The Federal Highway Administration *Manual for Selecting Safety Improvements on High Risk Rural Roads* suggests that agencies can use the limited data available, regardless of how small or incomplete the data set, to help determine a course of action. Data may include finite numerical values (quantitative data) or may come from conversations with law enforcement personnel and field staff to determine the types, contributing circumstances, and times of crashes that occur at specific locations (qualitative data). While specific volume data may not be available, agencies may be able to prioritize corridor-wide implementation by dividing roadways into low-, medium-, and high-volume categories.

After the fatal incident, a flashing red light and a four-way stop was installed to enhance safety at this intersection.

Recommendation #3: Farmers and rural county road commissions should discuss methods to allow for sight lines for oncoming traffic at roadway intersections.

Discussion: Rural roadways often have other hazards contributing to intersection sight line issues, such as trees and bushes. In this incident, a corn crop was almost fully grown and near harvest. The height of the corn obstructed the vision of both drivers to see each other approach the intersection.

Although not directly relatable to this incident, the county in which the incident occurred has a zoning plan that requires “No fence, wall, or screen or any planting shall obstruct visibility of motorists at driveway entrances to streets, *or at intersections*”. (*Emphasis added*)

Poorly maintained right of ways, fences, signage and agricultural plants may create intersection sight line hazards. MIFACE recommends that rural county commissions and property owners whose boundaries border two intersecting roadways discuss methods for reporting right of way issues and developing intersection improvement plans, MOUs allowing property owner right of way maintenance, or planting a ground crop such as soybeans or a setback for tall crops such as corn to allow drivers to see vehicles approaching an intersection from perpendicular roads.

Recommendation #4: Employers should establish a Safe Driving program which includes communicating distracted driving principles/restrictions and reviewing defensive driving practices with all vehicle drivers.

Discussion: Although the leading cause of a work-related death in Michigan may vary from year to year, since 2001, motor vehicle crashes have caused the largest number of work-related deaths. From 2001-2017, work-related motor vehicle crashes have killed 494 individuals.

The Network of Employers for Traffic Safety (NETS) has developed a 10-step Safe Driving program to minimize crash risk and offers guidelines for what an employer can do to improve traffic safety performance and minimize the risk of motor vehicle crashes. The 10-stop program elements include:

1. Senior Management Commitment & Employee Involvement
2. Written Policies and Procedures
3. Driver Agreements
4. Motor Vehicle Record (MVR) Checks
5. Crash Reporting and Investigation

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6. Vehicle Selection, Maintenance and Inspection
7. Disciplinary Action System
8. Reward/Incentive Program
9. Driver Training/Communication
10. Regulatory Compliance

NETS Road Safety Resources webpage offers free resources to assist employers in establishing a Driver Safety program and train employees about safe driving. Included on the webpage: “Recommended Road Safety Practices”, “Guide to Defensive Driver Training” and “Comprehensive Guide to Road Safety” (see Additional Resources section below).

ADDITIONAL RESOURCES

- National Highway Traffic Safety Administration. Distracted Driving webpage. <https://www.nhtsa.gov/risky-driving/distracted-driving>
- US Department of Transportation - Federal Highway Administration.
 - Intersection Safety
 - Rural Road Safety: https://safety.fhwa.dot.gov/local_rural/
- North American Training Solutions. <https://northamericantrainingsolutions.com/standards/>
- OSHA. *Guidelines for Employers to Reduce Motor Vehicle Crashes*. https://www.osha.gov/Publications/motor_vehicle_guide.html
- Network of Employers for Traffic Safety
 - Main webpage: <https://trafficsafety.org>
 - Road Safety Resources webpage: <https://trafficsafety.org/road-safety-resources/>
- New Jersey FACE Report #12NJ078: Tree-care Worker is Crushed by Cut Tree Section During Storm Damage Cleanup <https://www.cdc.gov/niosh/face/stateface/nj/12nj078.html>

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REFERENCES

Weather Underground [2014]. Weather history for nearby weather station. The Weather Channel Interactive, Inc.

ACKNOWLEDGEMENT

The Michigan FACE Program would like to acknowledge the decedent’s spouse for providing assistance and information for this investigation.