

Rural Road Safety

How to stay safe when sharing the road.

For Farm Machinery and Logging Truck Operators



Training Guide



Southwest Center
FOR AGRICULTURAL HEALTH, INJURY PREVENTION, AND EDUCATION

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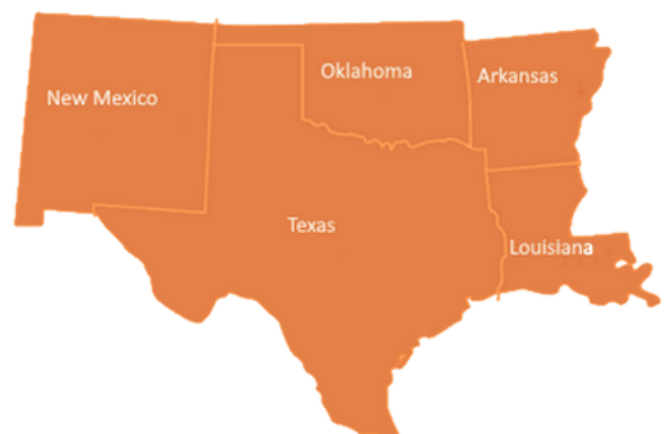


Far too often you hear stories about fatal or near fatal crash involving farm machinery or a logging truck and another vehicle.

In the U.S., the number one cause of fatal occupational injuries is highway transportation crashes.¹ AFF workers experience substantially higher transportation-related injury rates compared to other workers. Additionally, all five states (AR, LA, NM, OK, TX) in the SW Ag Center region were among those with the highest or second highest rates.²

It is imperative that tractor, logging truck operators, and motorists become aware of the collision hazards and how to stay safe on rural roads.

Speed and seasonal production are factors that account for higher crash trends in the SW region.⁶



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Logging-Related Crash Facts

- 28% of crashes occurred in the fall. All states experienced a higher percentage of crashes in the fall compared to other seasons.
- 47% were intersection-related.
- Speed was a factor in 16% of injury crashes vs 14% of non-injury crashes.
- 92% were male drivers and 25% were 45-54 years old. ⁴



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Agricultural-Related Crash Facts

- 30% of crashes occurred in the summer. All states experienced a higher percentage of crashes in the summer, except for Louisiana which had a slightly higher percentage of crashes in the fall.
- Of the crashes, 6 15% were single-vehicle vs 85% were multi-vehicle crashes.
- 32% were intersection-related.
- Speed was a factor in 34% of injury crashes vs 23% of non-injury crashes.
- 92% were male drivers and 19% were 45-54 years old. **2% were under 16 years old.**⁵















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How can I stay safe on rural roads?

- Follow these guidelines.
- Your efforts to stay safe on the road can be your best protection against drivers that don't plan to slow down and pay attention.

Always	 Follow road rules	 Use reflective materials & SMV placards	 Clean & replace reflective material	 Be visible 24/7
When Possible	 Use lead cars	 Use flashers	 Avoid heavy traffic	 Avoid bad weather
Never	 Drink & Drive	 Allow riders on fenders	 Use personal electronics	 Drive while tired

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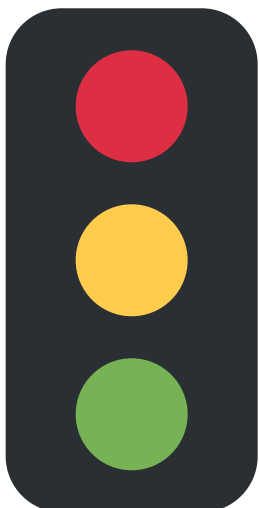


How can logging truck drivers stay safe?

- According to a comprehensive Federal Highway Administrative study, **2/3s of all trucking accidents are preventable.**
- Over 50% of all preventable accidents were attributed to five prime causes:
 - Adverse weather conditions
 - Following too closely
 - Failure to maintain control
 - Reckless driving
 - Improper lane change⁸

Evaluating risk is the first step in prevention.

Three categories to evaluate risk:



RED could be used for logging truck accidents caused by the logging truck driver or logging truck mechanical failure or poor choices by operations ie. operating trucks in adverse weather.

YELLOW could be used to identify potential logging truck maintenance issues or logging truck driver training issues.

GREEN could be used for systems that are in place that prevent logging truck accidents, incidents and near misses.⁸

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How can I stay seen on rural roads?

- **Slow-Moving Vehicle (SMV) Emblem** is a operators best protection on rural and public roads is the use of a SVM emblem.
- In the US, vehicles unable to reach a maximum speed of 25 miles per hour are required by law to display a SVM emblem at the rear of the vehicle.
- When towing a trailer or other equipment that blocks the SMV emblem, another SMV emblem must be attached at the rear of the towed equipment.
- **Check emblems often! Dirty emblems are not as effective as clean ones.**
- If you need to purchase SMV emblems or other safety equipment, check with your local implement dealer.



The use of SMV emblems is only one requirement for agricultural equipment used on public roads. Other state and local regulations may apply to the transportation of agricultural equipment on public roads. Additional laws may require proper lighting, special towing chains, reflectors, or specify other restrictions. Use of an SMV emblem does not replace other safety requirements.

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How can I stay seen on rural roads?

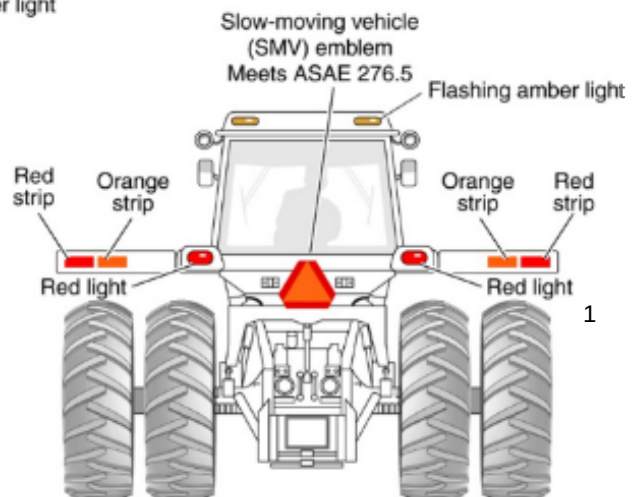
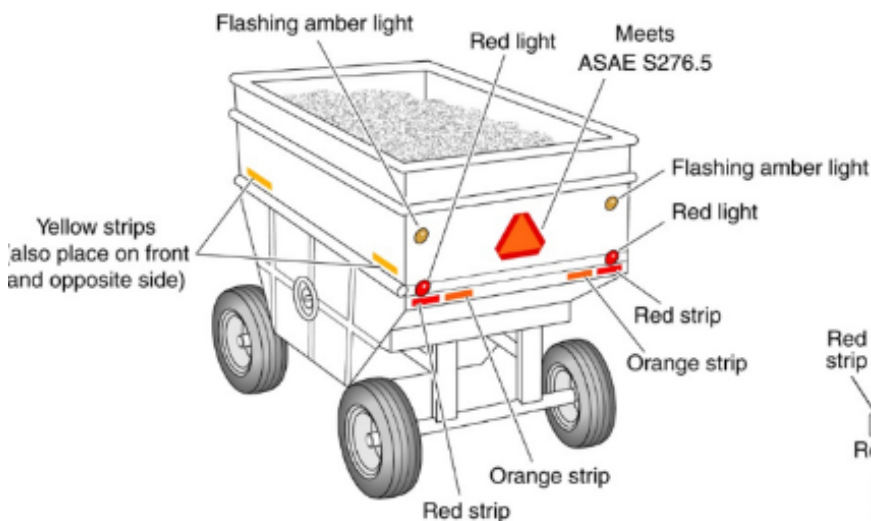
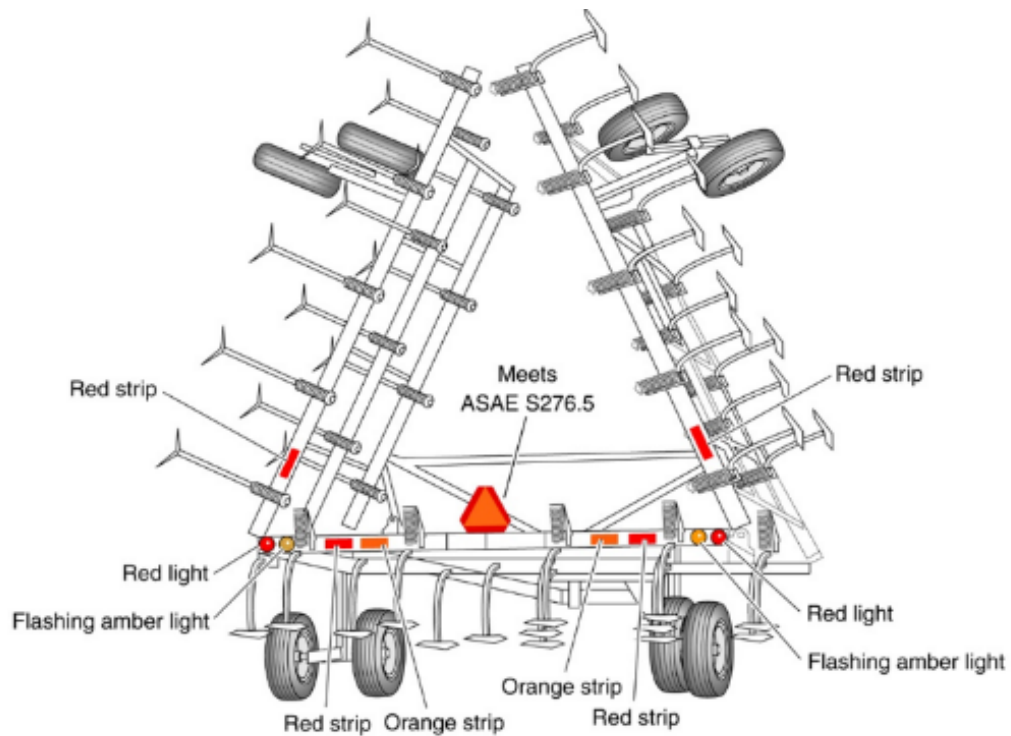
- **Lighting and flashers** can be used to warn other motorists of farm tractors.
- Tractors are required to have two forward-facing headlights and a red taillight that burns continuously. This taillight must be visible for 500 feet under normal circumstances and be mounted on the far left side of the tractor.
- All towed equipment must have two rear-mounted red reflectors positioned at the extreme left and right.
- When farm tractors are operated on public roads, they must also have white or amber flashers mounted on the front, and red or amber flashers mounted on the rear. These lights must be activated when the vehicle is in operation.⁶ See *lighting examples below*.



Not an example of proper lighting.

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Why identify slower vehicles?

- The best way to avoid a collision with a motor vehicle on public roads is to **make the tractor as visible as possible**. A difference in travel speed can often be the cause for collision.
- Early identification of a slow-moving vehicle by the motorist gives the motorist an opportunity to avoid a collision. It's helpful to know how little time motorists actually have when they come upon a slow-moving vehicle.

Travel Speed

A car traveling 50 miles per hour comes up behind a tractor traveling 20 miles per hour.

If the driver of the car notices the tractor while still 400 feet behind it, the driver has less than 10 seconds to avoid a collision with the tractor.

The driver must:

1. Recognize the danger.
2. Determine the speed the tractor is traveling.
3. Decide what action to take. ⁶

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What are other safe driving practices?

- **The first aspect of safe tractor operation on highways is to ensure that the tractor itself is safe to drive.**
- According to NIOSH, the average age of tractors in operation in the United States is 25.7 years. Thus, **a significant number of tractors are still in use that are not equipped with advanced steering, braking, and shifting technologies that make driving on highways safer.**
- Before you operate a tractor on a highway, be sure to:
 - Lock brake pedals together
 - Adjust the seat position so you are able to safely reach the steering wheel, pedals, and gear shifts
 - Adjust mirrors for good vision
 - Make sure all lights and flashers work properly
 - Check tire pressure and make sure wheel bolts are tight
 - Add weights if necessary to balance the tractor, especially if you are pulling or hauling a load.



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What are other safe driving practices?

- **Highway**

- **Stay as far to the right as possible, but avoid driving on uneven road surfaces at high speeds.**
- It is necessary to let cars pass, slow down, pull to a secure shoulder, stop, and let them pass.
- Avoid driving on steep inclines.
- Give motorist advanced warning by signaling at least 100 feet before you change speed or direction.

- **Towing Implements**

- Before towing machinery on highways, tractor operators should make sure the tractor is large enough to handle the load, and machinery is securely attached to the drawbar or three-point hitch system.
- Safety chains should be attached from the equipment to the tractor to keep the equipment from veering away in case it should unhitch from the drawbar.
- **It is always a good idea to have an escort vehicle to watch out for potential obstacles, parked vehicles, and other situations that would prohibit safe transport.**
- If possible, avoid many left turns.

- **Front-End Loaders**

- **If at all possible, do not travel on a highway with a loaded front-end loader, it can affect your ability to see obstacles, steer and brake safely.**
- Make sure that the tractor is properly balanced from front to rear using rear counterweights, and widen front wheel spacing.
- Drive slowly and travel with the bucket low to the ground. ⁶



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Resources:

1. CDC, MMWR, 2011 Occupational Highway Transportation Deaths- US, 2003-2008, <https://www.cdc.gov/mmwr/pdf/wk/mm6016.pdf>
2. Leveraging motor vehicle crash data for injury surveillance and research in AgFF <https://cts.tti.tamu.edu/swagcrash/>
3. Rural Road Safety Posters, American Society of Agricultural and Biological Engineers (ASABE) Standards Program, (276.8) 2016, <https://gpcah.public-health.uiowa.edu/wp-content/uploads/2017/05/Farm-Vehicle-Roadway-Safety-handout-5x7.pdf>
4. SW AgCrash Factsheet, Logging, https://cts.tti.tamu.edu/files/2021/02/SWag_logging_5.pdf
5. SW AgCrash Factsheet, Agriculture https://cts.tti.tamu.edu/files/2021/02/SWag_farm_7.pdf
6. Safe Tractor Operations | Driving on the highway <http://agsafety.tamu.edu/files/2011/06/SAFE-TRACTOR-OPERATION-ON-HIGHWAYS1.pdf>
7. NASD Safe Farm- Use SMV emblems for your safety <https://nasdonline.org/2472/d002298/safe-farm-use-smv-emblems-for-your-safety.html>
8. PLC Safety Newsletter Driving Logging Trucks <https://mainelogs.com/safety-newsletter-6-driving-logging-trucks/>

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