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# Boosting Visibility of Ag Equipment

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## Lighting and Reflective Material

### *Roadway hazards*

A 48-year-old father of three was driving a tractor pulling a hay baler on a state route when a car hit the tractor as it was trying to make a left turn. The driver of the automobile was attempting to pass the tractor when the incident occurred. The automobile driver was treated and released from the community hospital after the crash. The driver of the tractor was pronounced dead at the scene by the county coroner.

There were over 2,250 farm-related highway crashes in which 566 persons were injured and 33 killed in the last five years according to the Ohio Department of Public Safety.

### *Reducing the risks*

What are the chances that you will be involved in a farm machinery incident on a public road? These factors increase the odds:

- Motor vehicle traffic increases yearly.
- Fewer people have farm backgrounds and know to use caution when approaching farm equipment on the roadway.
- Farms are larger than in the past, so operators are forced to travel greater distances on the roadways between fields.
- Farm equipment has become larger and can extend into the opposite lane of traffic beyond the tractor.

There may be little you can do to change these factors, but others are directly under your control. For example,

lack of visibility is a major cause of many incidents. You can make a big difference by making sure your equipment has a clearly visible slow-moving vehicle emblem, proper lighting, and newly enhanced reflective material.

## Slow-moving Vehicle Emblems

### *An early warning*

It sounds like a word problem straight out of a school math book: If a car is traveling 55 mph and a tractor is traveling 15 mph, how long does it take for the car to make up the 400-foot distance between them?

The answer is 7 seconds—not a lot of time for the driver of the car to slow down, unless there is sufficient warning. The slow-moving vehicle (SMV) emblem, a fluorescent orange triangle with “retroreflective” borders, does just that. It warns approaching vehicles to slow down.



Regardless of the time of day, the SMV emblem is required by the Ohio Revised Code when moving “implements of husbandry” and farm machinery on public roadways. Implements of husbandry are vehicles designed and adapted exclusively for agricultural, horticultural, or livestock-raising operations. Additionally, SMV emblems are required on other specific vehicles, including horse-drawn vehicles.

To be effective, it is critical that SMV emblems be clean and visible. If wagons or towed implements obscure

the SMV emblem on the tractor, the rearmost wagon or implement needs to have an SMV emblem in place. Also, a faded SMV emblem may no longer attract the attention of an oncoming motorist and should be replaced.

## Lighting

### Tractors and self-propelled equipment

The Ohio Revised Code requires tractors and other self-propelled equipment to display the following lighting sunset to sunrise.

- One white headlight on the front of the vehicle, visible from at least 1,000 feet in front of the vehicle.
- Two red lamps as wide apart as possible on the rear of the vehicle, visible from at least 1,000 feet behind the vehicle or one light and two red reflectors.

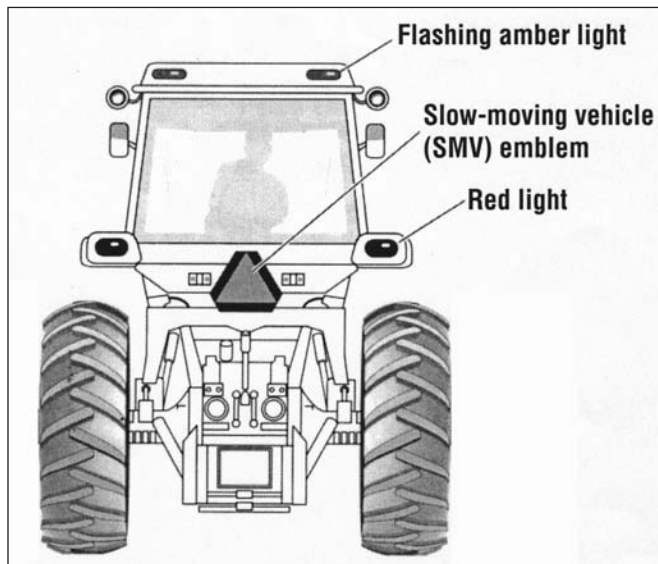


Figure 1. Self-propelled equipment

### Multi-wheeled tractors

The Ohio Revised Code requires multi-wheeled tractors model year 2001 or earlier and tractors more than 12 feet wide model year 2002 to present to display the following lighting and marking sunset to sunrise.

- Flashing amber lights mounted within 16 inches of outer extremities on both sides visible to the front and rear and between 3.3 and 12 feet from the ground.
- Amber reflective tape: 2X9 inch in size, visible to the front, within 16 inches of outer extremities on both sides.
- Red reflective tape: 2/9 inch in size, visible to the rear, within 16 inches of outer extremities on both sides.

- This is in addition to what is required for all tractors and self-propelled machines.
- Tractors manufactured in 2002 to present will have required lighting and marking.

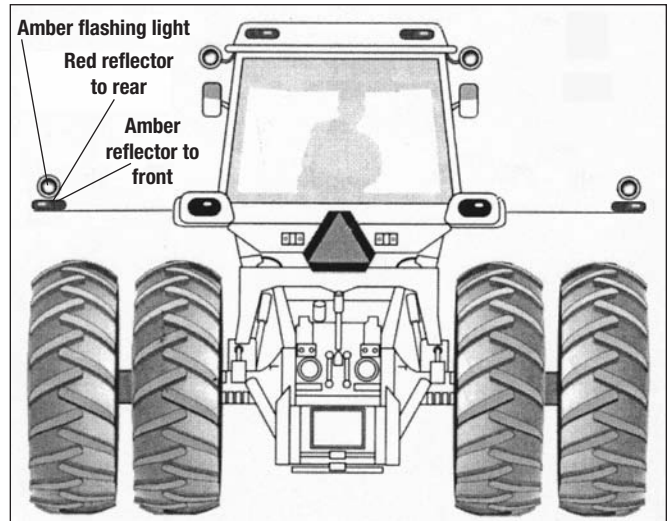


Figure 2. Multi-wheeled tractor

### Towed equipment

The Ohio Revised Code requires towed equipment to display the following lighting. Once again, the lighting is required sunset to sunrise.

- If towed implements or wagons obscure the red rear lamps of the tractor, the rearmost towed implement or wagon must have one red lamp mounted on it.
- Two red reflectors are also required by the Ohio Revised Code.

### About the Illustrations

The illustrations in this fact sheet depict recommended lighting and reflective materials on farm equipment. But keep in mind that these recommendations exceed requirements by the Ohio Revised Code.

The Code requires no flashing amber lights, but two are recommended. Also, as mentioned earlier, the Code does not require additional fluorescent and reflective material, but it is strongly recommended because reflective material can play a major role in preventing serious accidents.

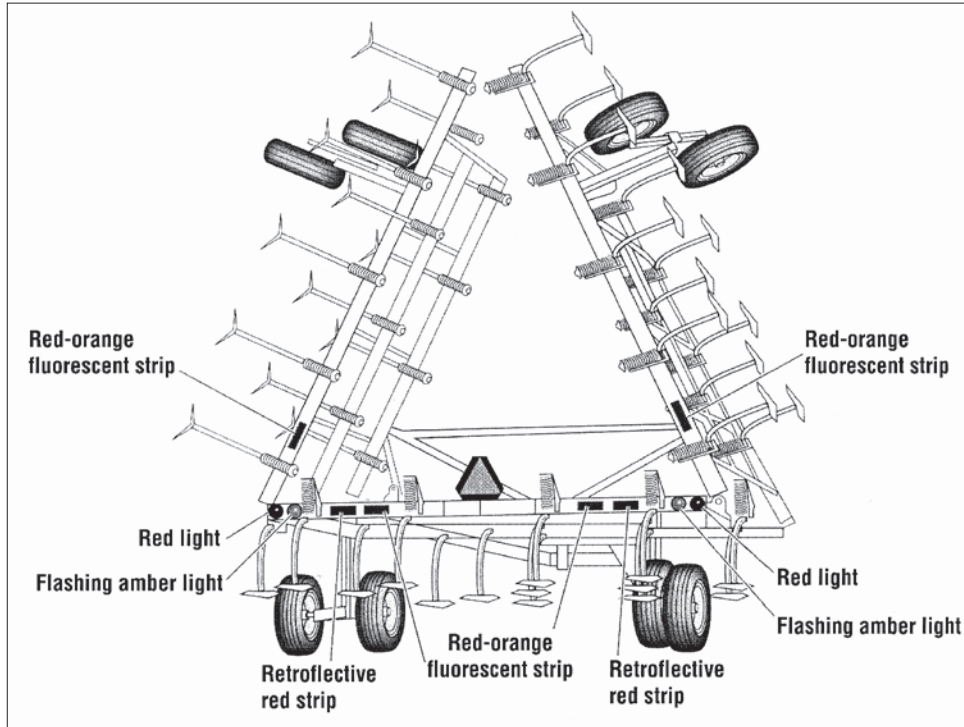


Figure 3. Towed equipment

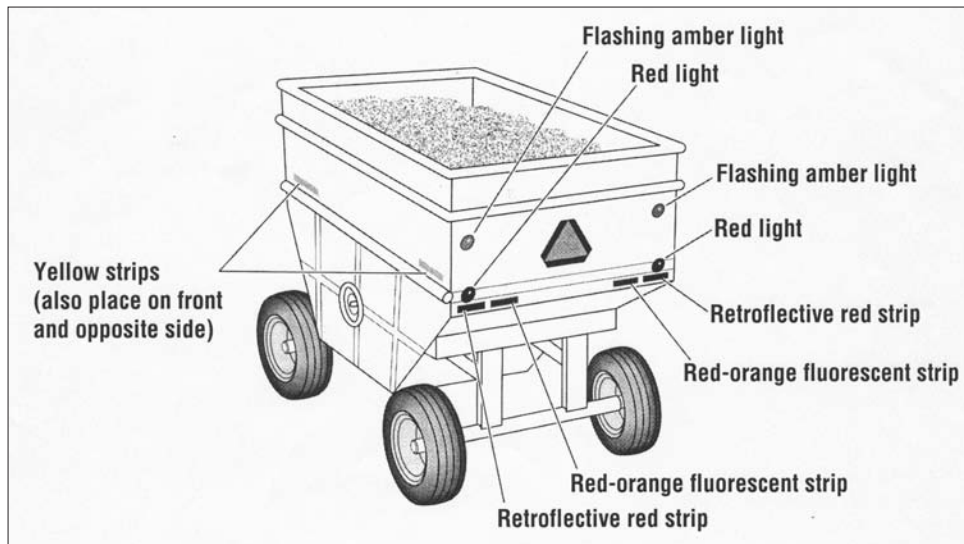


Figure 4. Towed equipment

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