

# FARM SAFETY AND HEALTH WEEK ... NOT JUST FOR FARMERS ANYMORE

PART II - GENERAL PUBLIC




## ***National Safety Council®***

**National Farm Safety and Health Week  
September 15 -21, 2002**

One of the most hazardous industries in the United States is agriculture with a death rate of 21.3 per 100,000 workers and 130,000 disabling injuries. The toll is huge with respect to the communities involved and national productivity of our food supply. The death and injury rates do not include victims who are not occupationally active in agriculture but who died from an incident involving farm and ranch equipment. The most common place to be involved in an incident with farm and ranch equipment is on the public roadway system. For this reason, the National Safety Council is targeting rural roadway safety during the National Farm Safety and Health Week.

There are three general types of users of the rural public roadway system: farmers, the general public, and persons who use roads for their exercise programs. This fact sheet will target the general public who use the rural public roadway system.

The general public often does not know the limitations of agricultural machinery. But since nearly everyone uses the rural public roadway system, it is important to have an understanding of how agricultural machinery operates on roads. Agricultural machines can be either towed behind tractors or be self-propelled. Tractors and agricultural machines have two major limitations. The first limitation is speed. These machines cannot travel faster than 25 miles per hour. The second limitation is maneuverability and will be discussed later in 

this fact sheet. Machines with this speed limitation are identified to other vehicles using the road with a Slow-Moving Vehicle (SMV) Emblem. SMV emblems should be on both tractors and trailing machines, however, be aware that they are sometimes missing, faded, dirty, or damaged which results in decreased visibility. The SMV emblem has a central fluorescent orange triangle. The orange triangle was designed to be eye-catching during daylight hours (See Photo 1A). The orange triangle is bordered by red strips of retroreflective tape. The red retroreflective strips are visible as a hollow red triangle when illuminated by lawful low beam headlights up to 600 feet (See Photo 1B).



To increase the visibility of agricultural machinery travelling on public roads, extremity marking is now being used. Motorists, however, should be aware there are many old tractors and machines used in agriculture and marking decals used on those machines are poor in quality, by today's standards, or missing. The ideal extremity marking decals that motorists should look for is red retroreflective tape on the rear of the machine and amber retroreflective tape on the sides of the machine (See Photo 1C). In addition to the use of retroreflective tape,

red and amber lights may be required for towed machines over 12 feet wide. Tractors and self-propelled machines are required to have both amber and red lights to the rear. The amber lights should be visible to the front and rear and should flash as a warning to other motorists (See Photo 2). When looking at the amber lights, if one stops blinking and the other continues to blink, the blinking light is the turn indicator and the operator plans to turn in that direction. White lights tell other motorists that some vehicle is coming toward them. Only headlights should be on when travelling on roadways. Working lights should be turned off. When traveling on winding roads, machine operators may use a pilot vehicle following the machine. If the roadway is narrow and/or the machine is wide, a pilot vehicle may be leading the machine to warn oncoming motorists of the hazard.



After agricultural machinery has been identified as being slow moving, motorists must understand and react to the situation. If a motorist is travelling at 55 miles per hour and comes upon another motorist travelling at 45 miles per hour and the distance between the vehicles is 400 feet, it will take 27 seconds for the first motorist to catch



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Photo 1:  
A properly placed SMV emblem that is clean, bright, and not obstructed. (A) SMV emblem shown during the day. (B) SMV emblem when illuminated with low beam headlights. (C) reflectivity of extremity markings.



Photo 2:  
The combine utilizes a good SMV, amber and red retroreflective tape, and red and amber lights. Not visible are headlights. The working lights should not be used when travelling on public roadways.

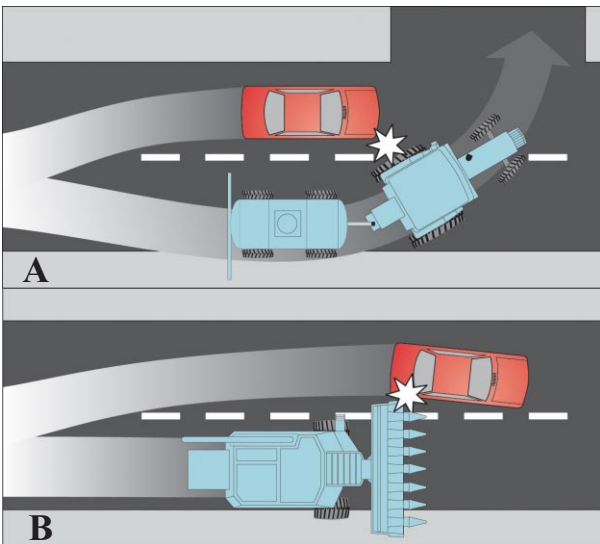


Figure 1:  
(A) Shows agricultural machinery must often move to the right before making a left turn for trailing machinery to clear entrances. (B) Shows agricultural machines are often wide and may encroach into other lanes.

the second motorist. If the same motorist travelling at 55 miles per hour comes upon a slow-moving tractor or machine travelling at 15 miles per hour and the distance is 400 feet, the closure rate is reduced to only 7 seconds. It is extremely important to be observant when driving on rural roadways for farm tractors and machinery. If the tractor or machine is not noticed in time, a collision may result. Because of the size and durability of agricultural machinery, the automobile and its occupants will probably sustain extensive damage and injury.



The other limitation of agricultural machines is maneuverability. Tractors with long trailing machinery may need to move to the right prior to making a left turn. Remember: one blinking amber light and a solid on amber light on the opposite sides of the machine, indicates the machine operator plans to turn in the direction of the blinking light. When following a large machine, look for signal indicators and possible fields and entrances the operator may want to turn into. Just because the operator moves the machine to the right does not indicate that he/she is saying it is safe to pass. If mirrors are present, try to observe the machine operator to see if the vehicle you are driving is seen. If not seen by the operator, you may be surprised with the machine turning suddenly to the left (See Figure 1A). Never pass any vehicle or machine unless it is safe to do so in a designated passing zone, even if the tractor or machine op-



cates to make the pass. It is best to be a defensive driver and wait until you are a 100% certain of the machine operators intentions before initiating a pass. If the machine is wide (See Figure 1B) that the motorist intends to pass, it is important to make sure there is plenty of clearance to complete the pass. Failure to do so could result in serious injury to the occupants of the vehicle, not to mention vehicular damage.



Sharing the road is everyone's responsibility and being proactive about preventing possible incidents that could result in injury is just plain smart.



*When travelling on public roadways:*

- 1) Be observant for slow-moving tractors and machinery.*
- 2) Be ready to reduce speed quickly when a tractor or machine is travelling ahead of your vehicle.*
- 3) Watch for places, such as fields and entrances, where the operator may turn into.*
- 4) Observe the amber warning flashers for changes that may indicate the operator making a turn.*
- 5) Be patient.*



*Patience is a trait that will allow everyone to go home at the end of the day.*

Sources of information:

Agricultural Safety and Health  
Best Management Practices  
Manual

ASAE Standards 2002

Association of Equipment  
Manufacturers

Cornell University Cooperative  
Extension

Iowa State University Cooperative  
Extension

National Education Center for  
Agricultural Safety

National Safety Council

New York Center for Agricultural  
Medicine and Health

Northeast Center for Agricultural  
and Occupational Health

The Ohio State University  
Cooperative Extension

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