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## Safe Movement of Farm Equipment on Public Roads

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# Agricultural Engineering Update



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AEN-67

## SAFE MOVEMENT OF FARM EQUIPMENT ON PUBLIC ROADS

The increasing size of farming operations brings with it an increased movement of equipment on the road. As road travel increases so does the potential for serious highway accidents. The most frequent accidents are collisions with other motor vehicles and loss of control which often leads to tractor over-turns. As an operator of farm equipment, your use of the proper safety equipment and good driving practices will greatly reduce the risk of an accident.

One of the first rules of highway safety is to "see and be seen". Kentucky law requires a slow moving vehicle emblem (SMV), a red tail light or reflector, and head lights. These requirements are to insure that you will be seen by other motorists when traveling on the public road.

### SAFETY LIGHTING AND EQUIPMENT:

For more complete protection, the American Society of Agricultural Engineers and the Uniform Vehicle Code recommend the following lighting and marking of agricultural tractors and self-propelled machines whenever they are operated on a public road.

1. Two headlights.
2. At least one red tail light on the left side clearly visible from the rear.
3. Two red reflectors clearly visible from the rear and mounted on the extreme left and right.
4. One SMV emblem visible from the rear and mounted point up near the center of mass at a height of three to six feet.

5. Two amber flashing warning lights, visible from front and rear. (Some tractors models offer a turn signal which works in conjunction with the amber warning lights.)
6. If the machine is more than 13-feet wide, the two amber flashing warning lights should be mounted within 16-inches of the lateral extremities.

**NOTE:** Some tractors now have a 7-terminal receptical for connecting the lighting system on towed vehicles.

**For Mounted or Trailed Equipment:**

1. At least two red reflectors mounted on extreme right and left, visible from the rear, if the equipment extends more than 4-ft from the center or rear of the equipment.
2. An amber reflector visible to front if equipment extends more than 4-ft to left of center of the tractor.
3. Two amber flashing warning lights, red tail lights and a SMV if the equipment obscures those on the propelled vehicle.
4. If the machine is more than 13-feet wide, the two amber flashing warning lights should be mounted within 16-inches of the lateral extremities.
5. If the equipment extends more than 33-ft behind the hitch point an SMV is needed on the rear and amber reflectors visible from each side.

**Other items that will provide additional security when traveling on the road.**

1. ROPS (roll-over protective system), either a cab or frame to protect against a tractor overturn. Use of the seat belt will keep the operator in the zone of protection.
2. Safety type hitch pins which won't jar out and safety chain or cables in case of hitch failure.
3. Rear view mirror to provide better rear vision. Extended mirrors help see around large loads.

**SAFETY DRIVING PRACTICES:**

1. Only licensed drivers who are familiar with the equipment should operate on the highway. Skill and maturity are needed to deal with the special driving problems on the highway.
2. Use safety equipment, and alert other drivers of your presence and slow speed. Equip all vehicles with an SMV and recommended lighting. Be sure all lights are in good working order and replace SMV's when they become dull or faded from extended exposure to the sun. Always use the flashing amber light whenever traveling on a public road and turn all lights on at dusk or in bad weather.
3. Wait for traffic to clear before entering or crossing a public road. Remember; a tractor and two wagons may require up to 18 seconds to clear a road. In 15 seconds, a car driven at a constant speed of 55 mph will travel over a quarter of a mile.

4. Keep to the right, so the approach lane is clear. Be courteous and pull off the highway when possible to let traffic pass. When pulling onto the shoulder, slow down and be alert for roadside obstacles, culverts, or washouts.
5. Maintain control of your tractor and equipment. Lock tractor brakes together for road travel. Shift down to lower gears when traveling up or down steep slopes with heavy loads. For adequate emergency braking at road speeds, the load being towed should be no heavier than the weight of the tractor. For loads up to twice the tractor weight restrict speed to 10 mph. For loads over twice the weight of the tractor only tow if they have self activating brakes.
6. Adjust road speed according to road conditions. Be alert for trailing equipment that could start to whip or sway and slick or rough conditions that could lead to loss of control.
7. Avoid falls from tractor and towed equipment. Don't allow children and extra riders on tractors, trailing equipment or self-propelled equipment.

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