SLOW MOVING VEHICLE (SMV) EMBLEMS

Objective: Visualize the importance of clean, bright slow moving vehicle (SMV) emblems for tractors and other farm vehicles used on public roads.

Concept: Farmers often use public roadways to move large farm machinery and tractors from one location to another. Large farm equipment travels at much slower speeds than cars and pickups. SMV emblems are made of reflective materials and are attached to the back of farm machinery to alert faster vehicles to slow down in order to avoid a collision.

Targeted Age: Upper elementary school students and above

Time: 30 to 45 minutes

Materials:
- Orange reflective tape
- Red reflective tape
- Blue, green, orange, and red construction paper
- Flashlight
- Dirt or mud
- Optional: two SMV emblems (one new and one faded)

This activity should be done in a large room where you have the ability to turn the lights off and cover the windows with curtains or shades.

Cut various colors of construction paper into long, rectangular strips. Tape all strips of paper and similar strips of reflective tape on one wall of the room. Have all the students move ten feet away from the wall. Turn out the lights. Shine the flashlight beam on each object. Compare similar colors of different materials (red construction paper and red reflective tape). Compare different colors of the same material (red and orange reflective tape). Use additional colors (blue, green, etc.) to demonstrate why red and orange were chosen for the SMV emblem. Keep track of which colors and materials are the most visible. Turn on the lights and rearrange the strips in the order of least to greatest visibility. Have the students move as far away from the taped strips as possible. Turn out the lights again and shine the flashlight onto the strips. Compare the visibility. They should be in the order of least to most visible. If not, rearrange to reflect the group’s choices.

Place mud on a part of each reflective strip and tape. Turn off the lights and observe what the mud does to the reflexivity of each strip. If you have new and old SMV emblems, repeat the demonstration comparing the faded and new emblems.

Discussion: Discuss various farm machinery using the public roads (tractors and implements, combines, etc.). Discuss the shape, size, and color of an SMV emblem. Discuss where the SMV emblem should be located on a tractor or farm implement (center; back of vehicle; high enough for car lights to shine directly onto emblem; from 2 to 10 feet off the road surface). The SMV emblem should be securely mounted with bolts so the surface is straight and perpendicular to the surface of the road.

(this activity is continued on the next page)
Question & Answer

Q: Why are SMV emblems necessary on farm machinery?
A: Due to the difference in speed, a slower vehicle such as a tractor, needs to be visible from a distance in order for a faster vehicle to slow down and avoid a collision. To facilitate this, machines that travel less than 25 miles per hour need to have slow moving vehicle emblems on the back to increase visibility. Not all states have SMV regulations while some have different speed limits, so check your state laws.

Q: When driving a vehicle on the road, what should the driver do when they come up behind a tractor with an SMV emblem?
A: Farm vehicles are allowed on the traveled portion of a highway. The orange and red triangle is a signal to all drivers to slow down and be cautious. When you see it, reduce your speed and maintain a safe following distance. Only pass when it is safe to do so. Some farm vehicles are long and wide and may turn at places that are not well marked, such as field entrances, so be prepared to stop.

Q: When are you most likely to come across tractors and other farm machinery while driving on rural roads?
A: Farm machinery is most likely to be on the road during planting and harvest but they may be on the road at any time during the year.

Q: What things prevent an SMV emblem from reflecting properly?
A: It is important that the emblems are clean and in good condition. As SMV emblems age, they lose their reflective ability. Replace SMV emblems that are no longer reflective.

Q: What things can youth do to help keep the drivers of slow moving vehicles safe?
A: Notice when an SMV emblem becomes faded and loses its reflexivity. Ask an adult for help in replacing it with a new one. If the SMV emblem becomes dirty, wash it with soap and water. These actions can help prevent a machinery/vehicle collision. When riding in a vehicle, youth can inform the driver when they spot a slow moving vehicle on the roadway.

Q: Where is the slow moving vehicle (SMV) emblem placed on the tractor or implement? Which characteristics of an SMV emblem help to improve its visibility?
A: The SMV emblem is placed 2 to 10 feet above the road surface on the middle back of the tractor or implement. An SMV emblem must be highly reflective and clean. If not, other drivers sharing the road with the tractor cannot see the tractor early enough to slow down to prevent an accident.

Q: Why should SMVs NOT be used as driveway markers?
A: SMV emblems are intended for use on tractors and other farm machinery. If they are used in other situations to call attention to a specific area, their purpose of calling attention to a tractor is diminished.