

**SMV**



## **Slow Moving Vehicle Emblem**

**Clay**

Name

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Club

Clever Clovers

Project

Tractor Safety Education

Level or Division

B

Grade

## WHAT IS AN SMV:

### Slow-Moving Vehicle Emblem

A slow-moving vehicle emblem has an orange fluorescent center and red reflective borders, and indicates a slow-moving vehicle which cannot exceed 25 miles per hour.



Slow Moving  
Vehicle

### Slow-Moving Vehicles

Certain slow-moving farm vehicles, construction equipment, and vehicles drawn by animals may share roadways. You should use care when approaching and passing these vehicles. Be alert for the special emblem that the driver must place on the rear of the slow-moving vehicle.

A rider of a horse or horse-drawn vehicle has the same rights and responsibilities of a motor vehicle driver when riding on a public highway. Approach with caution and be alert for any hand signals used by a horseback rider or the driver of a horse-drawn vehicle.



Slow Moving  
Vehicle

*From the Indiana BMV Driver's Manual.*

## **HISTORY OF THE SMV EMBLEM:**

In the late 1950s a 10-year study of fatal tractor accidents was conducted by Walter McClure and Ben Lamp, both of the Department of Agricultural Engineering at The Ohio State University (AEOSU), to understand the nature and causes of highway tractor collisions. The research indicated a significant number of fatalities related to highway travel of slow-moving vehicles (SMVs). A research proposal written by Ken Harkness (AEOSU) and funded through the Automotive Safety Foundation (1961-62) further focused understanding of SMV accidents and resulted in the development of a unique SMV emblem. Early data estimated that 65 percent of the motor vehicle accidents involving SMVs were rear-end collisions. The Ohio State Highway Patrol, county sheriffs, and municipal police cooperated in the research by gathering detailed data on 708 SMV accidents.

In 1962, under the supervision of Ken Harkness, the design and testing of the SMV emblem was completed. A 1/16 scale highway simulator had been constructed to test human recognition rates of different shapes and colors mounted on simulated SMVs. After testing various designs, a triangular-shaped emblem with a 12-inch-high fluorescent orange center and three 1 3/4 inch wide reflective borders was determined to be the most effective design for day and night visual identification.

The Goodyear Rubber and Tire Company sponsored initial public exposure to the SMV emblem in 1962. An emblem mounted on the back of a farm wagon and towed by a Ford

Tractor made a 3,689 mile trip from Portland, Maine to San Diego, California.

The first formal introduction of the SMV emblem was at a University of Iowa Invitational Safety Seminar in 1962. Carlton Zink of Deere and Company then became an avid promoter of the SMV emblem and played a major role in the adoption of the emblem by the American Society of Agricultural Engineers (ASAE).

In 1963 Novice G. Fawcett, President of The Ohio State University, dedicated the SMV emblem to the public. Also in 1963 the Agricultural Engineering Journal printed its first article with color illustrations about the SMV emblem. The National Safety Council promoted the adoption of the emblem and awarded a Certificate of Commendation to Ken Harkness.

In less than two years from the emblem's first date of availability, Nebraska, Michigan, Ohio, and Vermont adopted legislation requiring the emblem to be used on SMVs. Safety Leader Bill Stuckey, an Ohio Farm and Home Safety Committee member, spearheaded the adoption of the SMV emblem in Ohio. In 1967 the Canadian Standards Association (CSA) adopted the SMV emblem as a CSA Standard. In 1971 the SMV emblem became the first ASAE Standard to be adopted as a national standard by the American National Standards Institute (ANSI). In recognition for the research and development of the SMV emblem, Ken Harkness was selected as a Charter Member of the Ohio Safety Hall of Fame in 1992.

In 1992 the American Society of Agricultural Engineers designated the development of the SMV emblem as an ASAE Historic Landmark.

In 2013 the SMV celebrated 50 years of existence in the United States. It has been adopted for use in other countries.

The SMV is one of the most recognized emblems used by farmers and ranchers around the world. For over 50 years, this emblem has been behind agricultural equipment and horse-drawn vehicles warning the motoring public of a Slow Moving Vehicle.

I visited this Historic Landmark of Agricultural Engineering at The Ohio State University.



The sign reads:

**“HISTORIC LANDMARK OF AGRICULTURAL ENGINEERING**

Slow Moving Vehicle (SMV) emblem makes  
Significant contributions to agricultural  
and highway safety worldwide.

1961-63      Developed by Kenneth A. Harkness, Department  
of Agricultural Engineering on The Ohio State  
University Campus.

1964          Became an ASAE Standard

1968          Specified in National Uniform Vehicle Code

1971          First ABAE Standard Ratified by American  
National Standards Institute (ANSI)

Ohio Farm and Home Safety Committee provided leadership  
in achieving acceptance

Dedicated 1992”



## HOW TO DISPLAY AN SMV:

- ▲ Visible 500-feet to the rear; identifiable both day and night



- ▲ Condition of the emblem: clean, undamaged, not faded.  
SMV's fade over time and need to be replaced periodically
- ▲ Triangle point facing upward



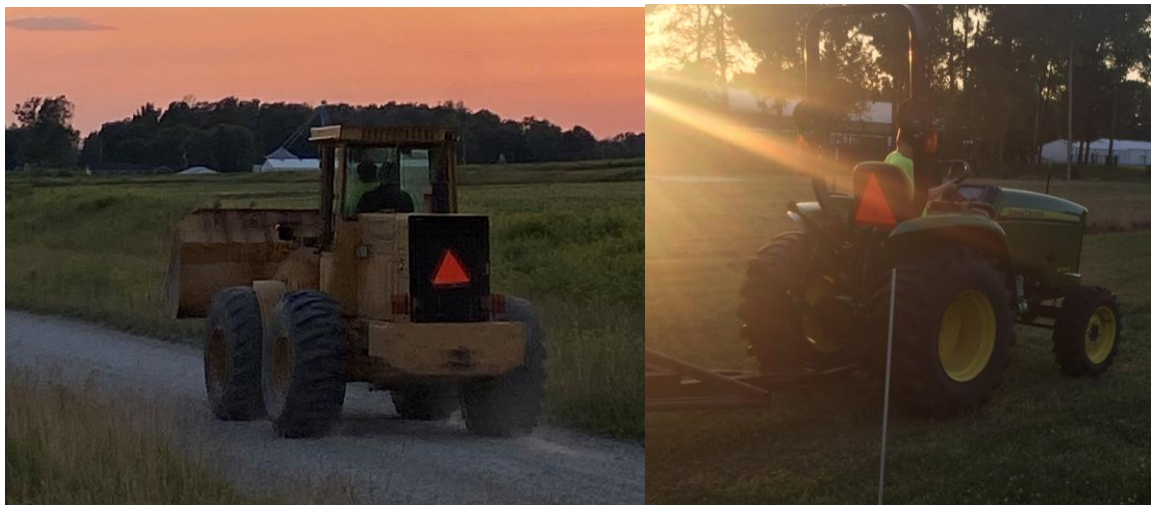
- ▲ 2 to 10 feet above the ground



- ▲ In center of vehicle or as near left-center as practicable



- ▲ Securely or rigidly attached (not required to be permanently mounted)
- ▲ MAXIMUM vehicle speed = 25 mph



- ▲ Emblem not to be used when transporting equipment with motor vehicles such as on a truck or trailer or at speeds greater than 25 mph; the SMV should be removed or covered when being hauled.
- ▲ Emblem is not to be used on stationary objects such as fence posts, gates, etc.



## **REFERENCES:**

- ▲ <https://www.in.gov/bmv/files/drivers-manual.pdf>
- ▲ <https://agsafety.osu.edu/smv-emblem>
- ▲ Photos of equipment from our family farm and sites in my community