



# Extension FactSheet

Food, Agricultural, and Biological Engineering, 590 Woody Hayes Dr., Columbus, OH 43210

## Buggy Lighting and Marking Recommendations

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### Introduction

Horse-drawn buggies have been used by the Amish as the primary means of transportation for generations. While this use of buggy transportation has remained constant, rural populations have grown, and tourism in Amish communities has increased. This leads to many more motorists sharing the same roads as buggies. Amish acceptance of a universal buggy lighting and marking practice may be one way to increase public awareness of buggies on the roadway and decrease buggy/motor vehicle incidences.

Ohio State University Extension, both at the state and county level, law enforcement officers, and a safety committee of Amish have worked together to establish a recommended practice for marking and lighting of Amish buggies. These recommendations are the result of research and community demonstration projects conducted since 1994 with Amish representatives playing a very active role. One additional source of information that provided guidance was the American Society of Agricultural Engineers (ASAE).

In August 2001, the ASAE proposed an engineering practice for lighting and marking of animal-drawn vehicles, including buggies. The purpose of this engineering practice was to provide a unique lighting and marking pattern for use solely on animal-drawn vehicles.

### Buggy Lighting and Marking

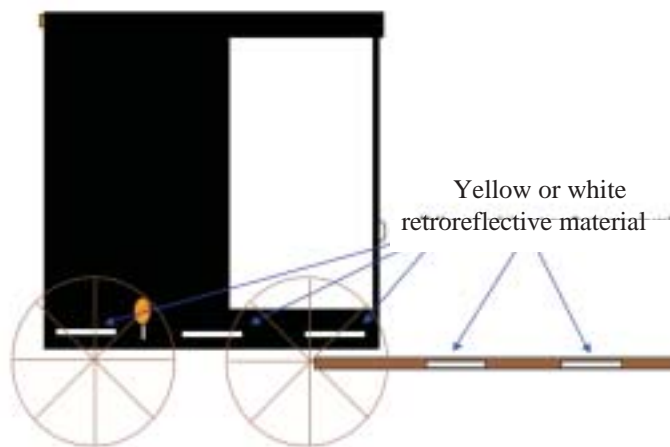
An outline of the recommended lighting and marking pattern for use on Amish buggies is presented here.

#### Buggy Side View (See Figure 1.)

- Three strips of yellow (or white) retroreflective material at least one-inch wide and nine-inches long placed along the frame.

- An additional nine-inch strip of yellow (or white) retro-reflective material placed along each side of the shafts.

Figure 1. Buggy Side View



#### Buggy Front View (See Figure 2.)

- Two headlamps.
- Two strips of yellow (or white) retroreflective material at least one-inch wide and nine-inches long placed along the top of the frame.

#### Buggy Rear View (See Figure 3.)

- Two red tail lamps. (The incorporation of turn signals on these lamps is optional.)
- Two flashing amber warning lamps, visible to the front and the rear.

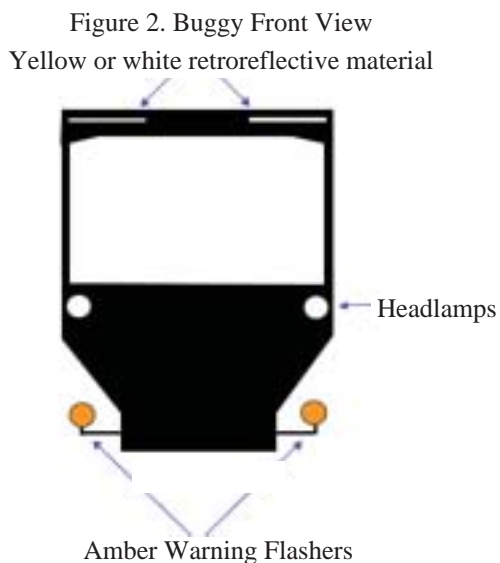


Figure 2. Yellow (or white) retroreflective material is placed along the top of the frame of the buggy's front as shown.

- Alternating red retroreflective/red-orange fluorescent material at least one-inch wide and nine-inches long outlining the sides and top. As an alternative to the red/red-orange pattern, white retroreflective material may be used.
- If white retroreflective material is used, two red reflectors should be mounted on the rear.
- Slow-moving vehicle (SMV) emblem.
- For additional rear visibility, an L.E.D. (Light Emitting Diode) light may be mounted on the top-center.

## Reference

ASAE, EP576, Animal-Drawn Vehicle Lighting and Marking, ASAE Standards, American Society of Agricultural Engineers (ASAE), St. Joseph, MI 49085.

## Acknowledgments

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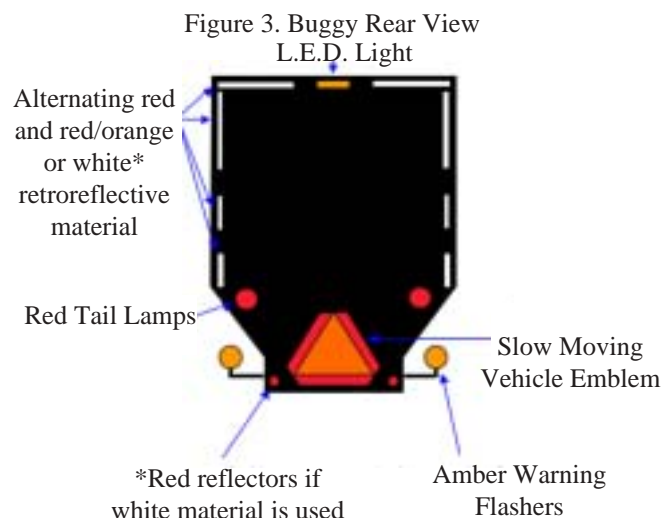


Figure 3. The rear of a buggy shows two red tail lamps, two flashing amber warning lamps, red and red/orange retroreflective/fluorescent material outlining the sides and the top, and a slow-moving vehicle (SMV) emblem.

## Resources

Retroreflective material, American Society of Agricultural Engineers (ASAE), S279.11, April 2001.

Lighting and Marking of Agricultural Equipment on Highways.

SMV Emblem, ASAE, S276.5, May 1998.

Slow-Moving Vehicle Identification Emblem.

Headlamp, SAE J975, JUN93

Headlamps for Agricultural Equipment Tail Lamp, SAE J585, DEC94

Tail Lamps (Rear Position Lamps) for use on Motor Vehicles Less Than 2032 mm in Overall Width.

Warning Flasher, SAE J974, JUN93

Flashing Warning Lamp for Agricultural Equipment.

Reflector, SAE J594, JUL95

Reflex Reflectors L.E.D. Light, SAE J1889, JUN99 L.E.D. Lighting Devices HS-34/00

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