LIGHTING AND MARKING GUIDE
FOR FARM EQUIPMENT OPERATING ON NEW BRUNSWICK HIGHWAYS

UNIVERSITY OF NEW BRUNSWICK TRANSPORTATION GROUP

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Introduction

In the spring of 2005 the Transportation Group in the Department of Civil Engineering at the University of New Brunswick (UNB) conducted a study that reviewed the existing lighting and marking regulations adopted by other jurisdictions for farm equipment.

The study examined policies in place throughout Canada and selected states in the U.S. which relate to the movement of oversize or overweight farm vehicles and equipment on public roadways. The majority of safety issues identified in the study relate to the lighting equipment on the farm vehicles. The study also recommended that a guide be developed and circulated to all farmers. This guide is the result of that recommendation.

The guide applies to farm equipment travelling for work related purposes along provincial highways within New Brunswick with the exception of those which are 4-lane divided. The only exception to this would be if a reasonable alternate route from the 4-lane was not available. Should this case exist contact is to be made with the Department of Transportation for suggestions relating to such travel. See contact information on page 47.

This guide was developed in consultation with government and industry and is intended as recommendations for appropriate levels of signing, lighting and markings for farm equipment to maximize safety. The requirements in the guide may be used in the future should it become necessary to place them in Regulations.

An interdepartmental committee was formed to assist the UNB Transportation Group. The Group would like to express our thanks to the departments of Agriculture and Aquaculture, Public Safety and Transportation, and also the Agricultural Alliance of New Brunswick for their input and advice without which this report would not have been possible.

Moving farm equipment can be particularly vulnerable since they are often larger and travel at speeds much slower than what might be expected by other motorists. The difference in speed and size make it very important for farm equipment to be marked and delineated in such a way that it can be easily recognized giving other motorists an opportunity to react properly under all weather conditions.

It is the responsibility of the operator to ensure farm equipment lighting is in proper working order and that the lighting, signing and any other markings are kept clean to maximize their effectiveness.

Farm machinery equipped with lighting, signing, markings etc. per this guide can travel at night. However should an Escort vehicle be needed (see p. 13) “daytime” travel only is permitted.

Farm equipment operators are not solely responsible for reducing collisions. All motorists need to take responsibility by being vigilant and alert to slow moving farm equipment on roadways. This is particularly important during mornings and evenings when visibility is often reduced.

There were a total of 256 safety related incidents involving farm equipment between 1993 and 2007 on New Brunswick roads. Nearly 120 of those incidents resulted in either a serious injury or a fatality. Visibility

of farm equipment is often cited as a cause of collisions, so this guide provides examples on how farm equipment can be marked more effectively.

The signing, lighting and markings shown on the photographs in this guide are recommendations and are for illustrative purposes only. Not every piece of farm equipment used in New Brunswick is included in the guide, only a sample of equipment is presented. Operators may have to apply judgment should certain farm equipment not match those shown. Should this be the case it is recommended to maintain the same level of lighting/signing etc. as shown in the guide in order to maintain consistency and maximize safety.

The appropriate departments of Government responsible for enforcement of regulations relating to the movement of farm equipment on New Brunswick highways should train and inform all law enforcement officers relative to the contents presented in this guide.

The *NB Driver's Handbook – A guide to learning safe driving skills* should contain a section related to other road users and their movement on the highway.

Basic Lighting/Marking Requirements

For the benefit of readers, farm equipment lights and markings were divided into different categories and assigned reference numbers from one (1) to eight (8). These guidelines apply to all farm equipment including self-propelled implements of husbandry (SPIH) regardless of size and shape.

Light Emitting Diodes (LED) are recommended and beneficial to use on equipment over traditional light sources. LEDs have an enhanced/design capability, longer system life, lower light source temperature, faster response time and are more energy efficient than traditional light bulbs.

Reference Number	Basic Lighting/Marking Requirements	Colours
1	Head lights	White
2(a)	Flashing warning lights	Amber
2(b)	Rotating warning light	Amber
2(c)	Flashing extremity lights	Amber
3	Rear/Front turn signal indicators	Amber
4	Tail lights	Red
4	Rear brake lights	Red
5	Over dimensional or "D" sign specification	Red / White
6	Slow moving vehicle (SMV) emblem	Red
7	Flags at extremities	Red/Orange
8	Retro – reflective material	Red / White

The majority of safety issues identified in the UNB August 2006 study on the Movement of Farm Equipment related to the lighting requirements on farm vehicles. In many cases the lighting problems were associated with the width of vehicles. Sections two (2) and seven (7) of this report discuss vehicle width and lighting requirements.

Users of this document should note that "Day-time" means from sunrise to sunset; while "Night-time" means from sunset to sunrise.

1. Head Lights

Tractors and self-propelled implements must have at least two but not more than four standard head lights which should be mounted symmetrically at the same height and spaced the same distance on either side of the centerline as far apart as practical. These lights should be no lower than 1 metre (3.3 ft.) from the ground and not more than 3 metres (10 ft.) high.

Head Lights

Head Lights

T I P S

1. Two head lights are necessary but do not use more than four.
2. Use head lights even during daytime to be extra safe.
3. Do NOT use flood lights or general service lights in place of proper head lights.
4. Ensure head lights are properly aimed and clean.

2. Flashing Warning Lights

2 (a) & (b) Equipment less than 12 ft. wide

If the farm equipment or self-propelled implement of husbandry (SPIH) is less than 3.65 metres (12 ft.) wide then 2 flashing amber warning lights on the front and two flashing amber lights on the rear are required 2(a). Alternatively, a rotating amber light can be mounted on the uppermost part of the vehicle such that it is visible from the front and rear 2(b).

The warning lights should flash in unison 60-90 times per minute or be continuously lit. They should be mounted at the widest part of the vehicle but placed not more than 0.15 metres (0.5 ft.) from the side of the permanent structure of the vehicle. They must be visible at a distance of at least 150 metres (500 ft.) in normal darkness.

Rotating Amber Flashing Light 2(b)

Note: If the equipment has amber turn signals (see Section 3) that meet the above specifications, they may be set to flash in unison as an alternate to 2(a).

Flashing Amber Lights 2(a)

T I P S

1. Equipment less than 3.65 metres wide (12 ft.) requires two amber flashing warning lights to be displayed both in the front and rear.
2. An alternate rotating amber flashing light mounted on the uppermost part of the vehicle should be visible from the front and rear.
3. Install at least one flashing amber light as high as practical.

2 (c) Equipment wider than 12 ft.

For improved visibility, when farm equipment is wider than 3.65 metres (12 ft.), or 27.5 metres (91 ft.) in length or has a front overhang exceeding a meter (3.3 ft.), then amber warning extremity lights should be displayed at the widest part of the vehicle.

A minimum of one light is required to be mounted on both the far right and left of the tractor/implement. Lights must be visible from the front and rear from a distance of 150 metres (500 ft.). Extremity warning lights are positioned within 0.4 metres (1.3 ft.) of the right and left extremities. On self-propelled vehicles the lights should be mounted at a height of at least 1 metre (3.3 ft. On towed equipment it is preferable to use the same height but not more than 3 metres (10 ft.).

Note: If it is not possible to mount lights on the extremities of the equipment, then Flags may be used (see Section 7).

Flashing Warning Extremity Lights 2(c)

T I P S

1. Equipment wider than 3.65 metres (12 ft.) requires two extremity lights to be used.
2. Extremity lights must be visible from both the front and rear of the vehicle from a distance of 150 metres (500 ft.).
3. For improved visibility all lights should be illuminated during day and night conditions.
4. Ensure all lights are clean and in working order to increase safety for both yourself and other roadway users.

3. Rear/Front Turn Signal Indicators

Amber turn lights should be provided in addition to red tail lights (see Section 4). When the turn indicator is on, the light on the side of the flashing turn indicator should flash faster, up to 110 times per minute, while the light on the opposite side turn signal should burn steady and not flash.

Turn signal indicators must be visible at all times for a distance of 30 metres (100 ft.). Newer SPIH and tractors are normally provided with rear signal lights on the tractor and are clearly visible to other motorists traveling from the rear. Signal indicators are not required on implements towed behind tractors unless the lights on the tractor are obscured, or hidden from behind.

T I P S

Drivers must use turn signals:

1. Before turning left or right at any intersection or into a private road or driveway.
2. While changing lanes, leaving, or entering the traveled portion of roadway.

Tail Lights and Rear Turn Indicators

4. Tail Lights and Rear Brake Lights

All vehicles and SPIH must have two red tail lights mounted symmetrically and at the same distance from the centerline as far apart as possible (>1.2 metres (4.0 ft.) wide at rear). They should be placed at a height of between 0.5 – 1.8 metres (1.6 – 6.0 ft.) above the road surface.

Red lights are mounted on the rear of a motor vehicle to signal when brakes are applied to slow or stop. For clear visibility make sure the surface is clean. Maintain the brakes as required by the manufacturer.

Tail Lights and Rear Brake Lights

T I P S

1. Always remember to keep the light surface clean.
2. Ensure the tail lights and brake lights are always operational.

5. Over Dimensional or "D" sign

Over dimensional vehicles are those which are more than 2.6 metres (8.5 ft.) wide and/or 23 metres (75 ft.) in length (combination of vehicles and load); and/or 4.15 metres (13.6 ft.) in height. Furthermore, a vehicle whose weight exceeds the New Brunswick Motor Vehicle Act (MVA) limits will be considered an over dimensional vehicle.

Over dimensional vehicles are required to display a "D PANEL" sign measuring 2.4 metres (8.0 ft.) by 0.3 metres (1.0 ft.) high on both rear and front of the over dimensional vehicle/load.

An over dimensional vehicle may have operating restrictions imposed including days or time of travel, limits on load overhangs, speed limits, special lights and warning devices etc. However if the vehicle is a farm vehicle or self-propelled implement of husbandry (SPIH), it is exempt from these regulations as long as it is operated on the highway for farm related reasons. The signing and marking segments are in place to compensate for the over-sized dimensions.

Over Dimensional or "D" Sign

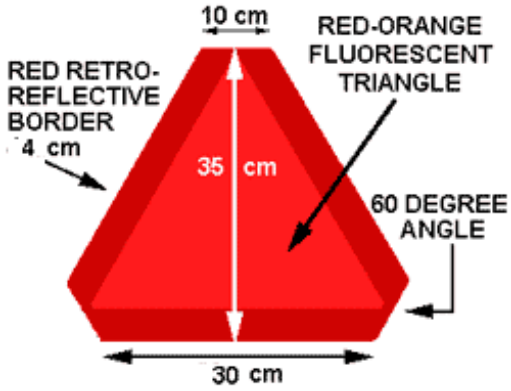
For more detailed information on "D" sign please follow the most up-to-date version of proposed guidelines for the movement of over dimensional farm equipment by New Brunswick Department of Transportation.
(http://www.gnb.ca/0113/trucking)

Over Dimensional or "D" Sign

T I P S

1. Determine whether the equipment or load falls in the over dimensional category.
2. "D PANEL" signs must be legible from at least 125 metres (410 ft.).
3. "D PANEL" signs are only to be displayed when an oversize vehicle move is in progress.

6. Slow Moving Vehicle Emblem



All tractors and SPIH must display a Slow Moving Vehicle (SMV) sign on the rear of the vehicle. The SMV sign is mounted with the broad base down and point of the triangle upwards. It must be placed as close as practical to the rear centre of the vehicle and between 0.6 metres (2 ft.) and 2 metres (6.6 ft.) above the road. If there are several vehicles moving as a unit, the SMV sign must be on the rear of the last vehicle in the platoon.

It must be clearly visible for a distance of not less than 300 metres (1000 ft.). Dirty SMV signs should be cleaned and faded/damaged signs must be replaced. SMV signs are used only for slow moving vehicles traveling on the roadway.

The purpose of an SMV sign is to warn the other drivers that the vehicle is traveling at 40 km/h or less. The SMV emblem aids motorists in identifying the vehicle ahead as a slow moving farm vehicle. In addition to tractors and SPIH a towed implement must display a SMV on the rear of the combination. For instance, when towing an implement (e.g., combine, cultivation equipment, chisel plow, etc.) with a tractor a SMV sign must be placed on the rear of the last vehicle in the combination. The combination should be traveling at or less than 40 km/h. A SMV sign is prohibited from being displayed on a vehicle traveling greater than 40 km/h.

As of September 1, 2004 the SMV emblem must meet ASAE (American Society of Agricultural Engineers) S276.5 standard. This is a significantly improved emblem over older versions because it is visible at 300 metres (1000 ft.) at night.

Slow Moving Vehicle (SMV) Emblem

T I P S

1. The purpose of the SMV sign is to warn other drivers that the vehicle is traveling at 40 km/h or less.
2. Remember to display a SMV sign on the rear of any towed implement.
3. Faded or damaged SMV signs or signs purchased prior to 2004 must be replaced.

7. Flags at Extremities

If equipment is more than 3.65 metres (12 ft.) wide, and it is NOT possible to mount Flashing Amber Extremity Lights (see 2 (c)), then bright red or orange fluorescent coloured flags should be attached at the left and right extremities. Flags must have a minimum area of 40 cm x 40 cm (16” x 16”) and be visible from the front and rear. Try to minimize travel of these vehicles during bad weather and poor visibility. Flags may be used only for “day-time” movements.

Flags at Extremities

T I P S

1. Flags must have a minimum area of 40 x 40 cm (16 in. x 16 in.) and be visible from the front and rear.
2. Movement of over-sized vehicles with flags should only be during daylight hours.
3. Minimize travel of these vehicles during bad weather and poor visibility conditions.
4. Operators of vehicles conveying a load must not permit the accumulation of vehicles behind the load such that the normal flow of traffic is impeded. Operators must slow down, pull over, stop or otherwise allow vehicles to pass.

8. Retro-reflective Materials

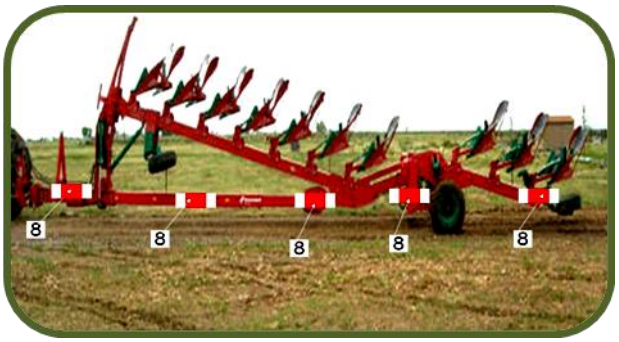
Retro-reflective marking tape, also known as conspicuity tape or simply reflective tape, is typically used to improve the rear and side visibility of a vehicle. During normal darkness, retro-reflective marking tape should be visible from a distance of at least 150 metres (500 ft.) when directly exposed to the beam of a head light.

On the rear of the vehicle the red and white tape should be used. At least one strip 0.6 metres (2 ft.) long should be placed on the rear of the vehicle. The tape should be placed not higher than 1.5 metres (5 ft.) from the ground.

On the sides of a trailer or wagon, red and white tape should be used. When retro-reflective tape is used on the rear upper body railings, solid white tape should be used. Tape should be on the upper rear corner of the cab. Strips 0.3 metres (1 ft.) long should be used and placed as high as possible.

The edge of red conspicuity tape should not be closer than 75 mm (3 in.) to the edge of any amber lights. The edge of white conspicuity tape shall not be closer than 75 mm (3 in.) to the edge of any light.

Retro-reflective tape should be a minimum of 50 mm (2 in.) wide.



Retro-reflective Tape

T I P S

1. Retro-reflective marking tape enhances the visibility of equipment in both darkness and day-light. It has been proven to reduce accidents.
2. Ensure tape is clean since dirt reduces its effectiveness.

Farm equipment or SPIH loads exceeding 4.88 metres (16 ft.) in width or 27.5 metres (90 ft.) in length require an Escort Vehicle. The equipment and loads can be moved during daylight hours on any day of the week. Escorts are required under the conditions listed below:

On two-lane highways:

At the FRONT and REAR of loads exceeding 4.88 metres (16 ft.) in width.
At the REAR of loads exceeding 27.5 metres (91 ft.) in length.

Operational Notes:

When the vehicle is proceeding at a speed of 50 km/h or less the escort must maintain a distance of 150 metres (500 ft.) from the vehicle.

Escort vehicles are limited to 2 axles and maximum wheel base of 2.5 metres and a maximum GVW of 8000 kg. The equipment should not exceed a speed of 50 km/h.

Equipment Requirements for Escort Vehicles:

- 360 degree amber warning light required at front of vehicle conveying the load, and on roof of Escorts.
- Minimum visibility of 300 metres (1000 ft.) in all directions, 60 to 90 flashes per minute.
- Minimum mounting height is 1.5 metres (5 ft.) from the road surface.
- More than one light may be required to provide 360 degree visibility around the vehicle.
- Bright Fluorescent red or orange flags 40 cm x 40 cm minimum (16 in. x 16 in.) must be at the extremities of all over width and over length loads.
- Flashing amber lights, visible from a distance of 150 metres (500 ft.), are required on extremities of loads exceeding 3.65 metres (12 ft.) in width, or 27.5 metres (90 ft.) in length, or on vehicles with front overhangs exceeding 1.0 metre (3.3 ft.).
- “D PANEL” signs must be legible from at least 125 metres (410 ft.) and must be displayed as follows:
    - On FRONT of leading Escort vehicle and on REAR of following Escort vehicle.
    - If rear escort vehicle is not used, then on REAR of equipment.
    - On FRONT and REAR of vehicle when width exceeds 3 metres (10 ft.)
    - On REAR of vehicle when rear overhang exceeds 2.0 metres (6.6 ft.)
    - On FRONT of vehicle when front overhang exceeds 1 metre (3.3 ft.).

- D PANEL signs on escort vehicles are only to be displayed when an oversize move is in progress.
- NOTE: “D PANEL” signs are to be constructed as per diagrams in NBDOT NOTICE TO TRANSPORTERS OF OVERSIZE AND/OR OVERWEIGHT INDIVISIBLE LOAD/VEHCILES
- Reflective tape is required on both sides of front overhang exceeding 1.0 metre (3.3 ft.) and rear overhang exceeding 2.0 metres (6.6 ft.).

The General Conditions listed below apply:

Operators of vehicles must not permit the accumulation of vehicles behind such that the normal flow of traffic is impeded. Operators must slow down, pull over, stop or otherwise allow vehicles to pass.
Equipment must not be moved when highway conditions make it dangerous and in any event if visibility is less than 300 metres (1000 ft.).

TIME: Day time travel means travel is permitted from sunrise to sunset.
Sunrise and sunset times will be those established by the National Research Council for the location of the vehicles.

Summary

This guide presents the minimum levels suggested for lighting and marking of farm equipment. Individuals, for their own and others safety, can add additional lighting or reflective tape to their equipment to make it more visible for motorists. Supplemental lighting may conflict with that required under various provincial regulations and vehicle owners should check to see if they are in violation of existing rules.

This guide is largely based on the latest lighting standard for farm equipment, S279.13, developed by the American Society of Agricultural and Biological Engineers (ASABE) and American National Standards Institute (ANSI) in December 2005.

A significant amount of research was done to evaluate other recommended practices for lighting and marking of farm equipment in various provinces, states, counties and farming and safety associations. However, the newest edition (13^{th}) of the S279.13 guide was found to provide good comprehensive practices. Although compliance with these lighting and marking guidelines will not completely eliminate all collisions involving farm equipment, it should help to significantly reduce the number of incidences.

As of September 1, 2004 the Slow Moving Vehicle (SMV) emblem should meet ASAE (American Society of Agricultural Engineers) standard S276.5. This is a significantly improved emblem over the earlier signs since the new emblem is visible at 300 metres (1000 ft.) at night.

The operator should make sure lights are visible from front and rear. When operating farm equipment on roadways all lights should be illuminated during both day and night conditions.

Examples of Suggested Lighting and Markings for Farm Equipment

To assist with the determination of the lighting and marking requirements on specific pieces of equipment, examples are presented in this section. Not all pieces of farm equipment moving on New Brunswick highways are included in this guide. The descriptions of references of basic lighting/marking symbols are presented again in the following table.

Reference Number	Basic Lighting/Marking Requirements	Colours
1	Head lights	White
2(a)	Flashing warning lights	Amber
2(b)	Rotating warning light	Amber
2(c)	Flashing extremity lights	Amber
3	Rear/Front turn signal indicators	Amber
4	Tail lights	Red
4	Rear brake lights	Red
5	Over dimensional or "D" sign specification	Red / White
6	Slow moving vehicle (SMV) emblem	Red
7	Flags at extremities	Red/Orange
8	Retro – reflective material	Red / White

In this guide, farm equipment is divided into five major sections, plus one for "Other". These sections are arranged in the approximate order representing the seeding to harvesting phases of farm activities. The major pieces of equipment used in the various functions are listed in the following groups.

Application Equipment
Fertilizer and Lime applicators
Pesticide applicators
Manure applicators
Tillage and Cultivation Equipment
Planting Equipment
Harvesting and Storage Equipment
Material Handling Equipment
Other Equipment

1. Application Technology

1A. Fertilizer and Lime:

Fertilizer Auger – Side Discharge

Retro-reflective tape on the sides of a longer vehicle enhances conspicuity of the unit. Add retro-reflective tape to your farm equipment on the front, back and sides. Use flags on protruding sections of equipment.

Fertilizer Spreader

Use warning lights 2(b) or 2(c) where electrical wiring can be mounted; otherwise use flags (7).

Terra-gator Front View

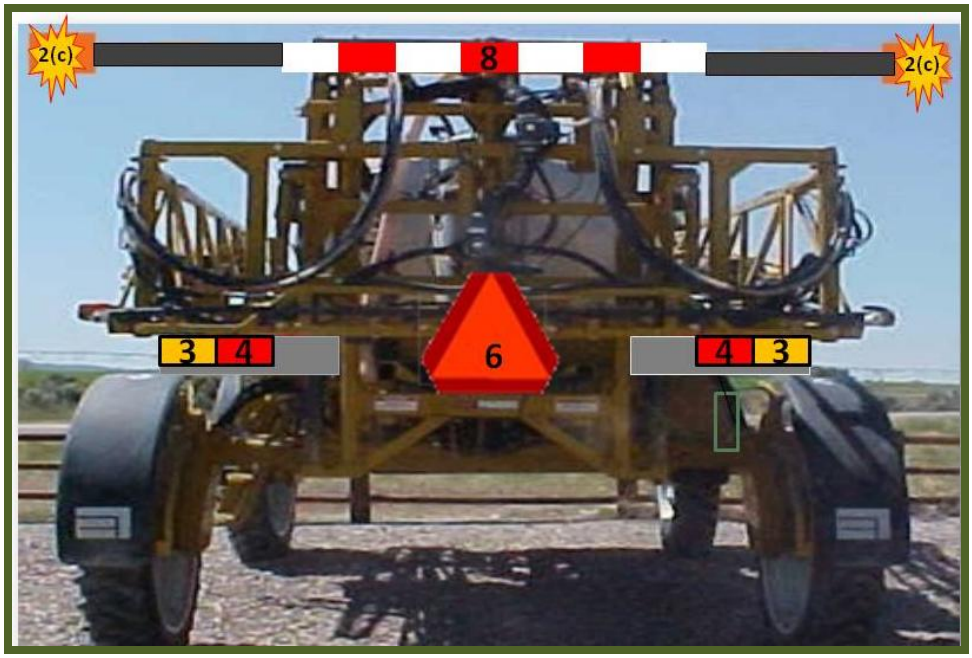
Use 2(a) or 2(b) if less than 12 ft. wide; otherwise use 2(c) or 7.

1B. Pesticide Applicators:

Sprayer – Front

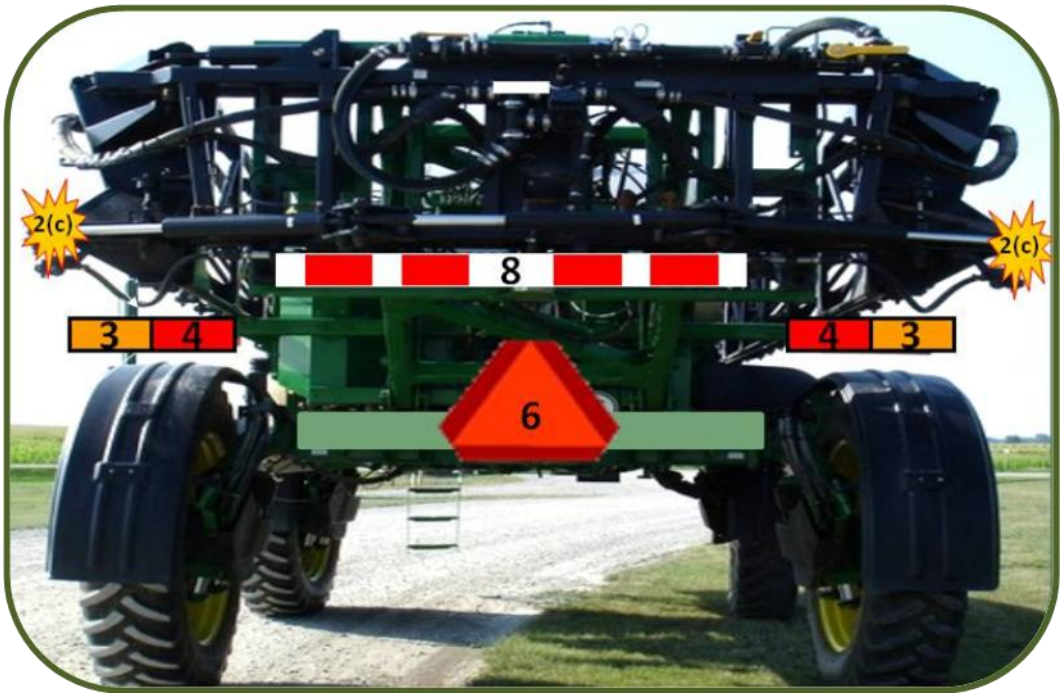
Use lights or flags as appropriate to mark the extremities of wide equipment or loads.
Lights identifying the extremities may require mounting bars.
2(b), 2(c) or 7 may be used depending on equipment width.

Sprayer- Back



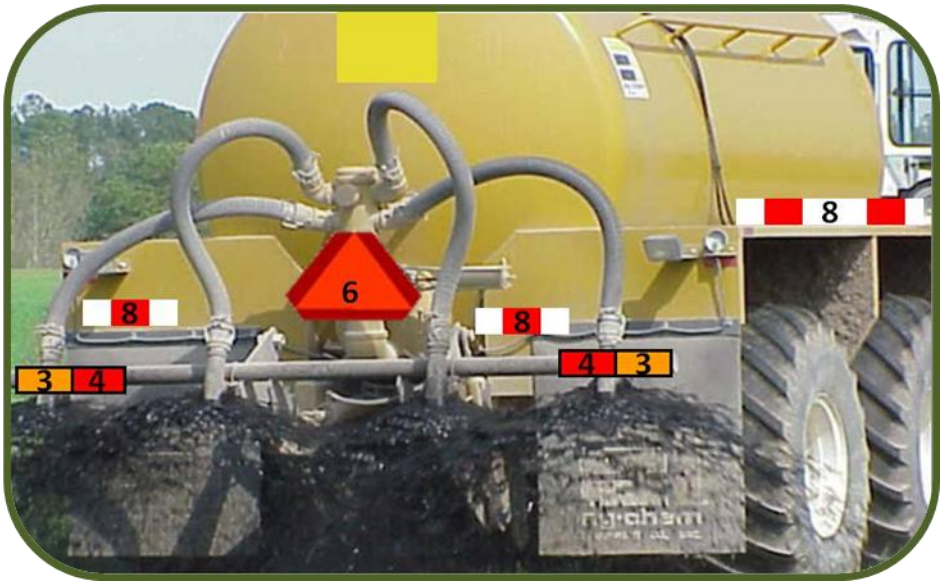
Sprayer – Front

Use 2 (b) if less than 12 ft. wide; otherwise use 2 (c) or 7.



Sprayer – Back

1C. Manure Applicators

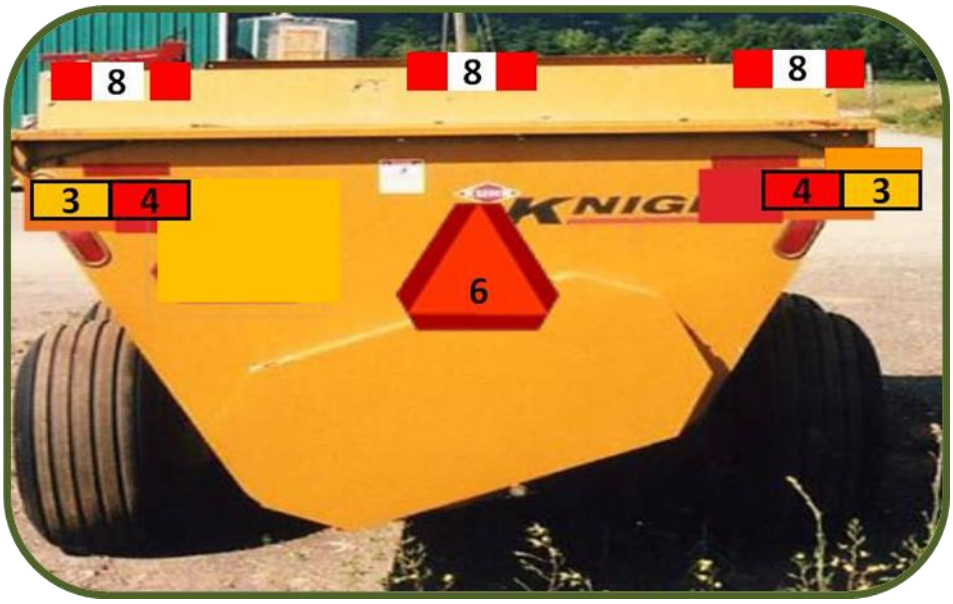


Liquid Manure Spreader

Effort is required to keep rear lighting and markings clean.

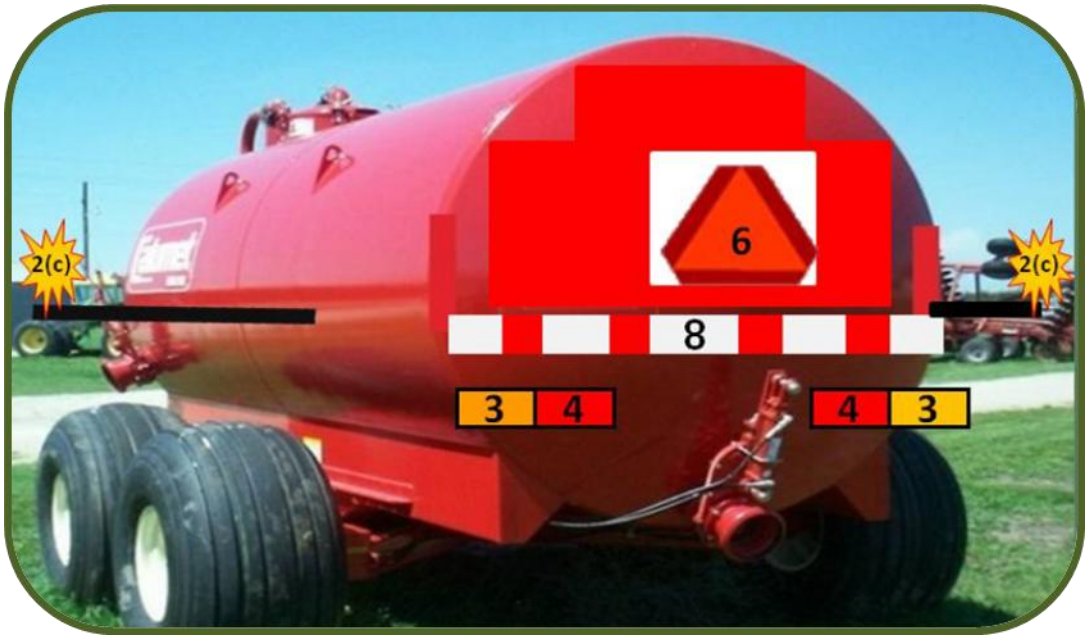
Manure Spreader

2(a) or 2(b) or 7 may be used instead of 2(c) depending on equipment width.



Manure Spreader

Maintain slow moving vehicle signs (6) so they are clean and not faded.



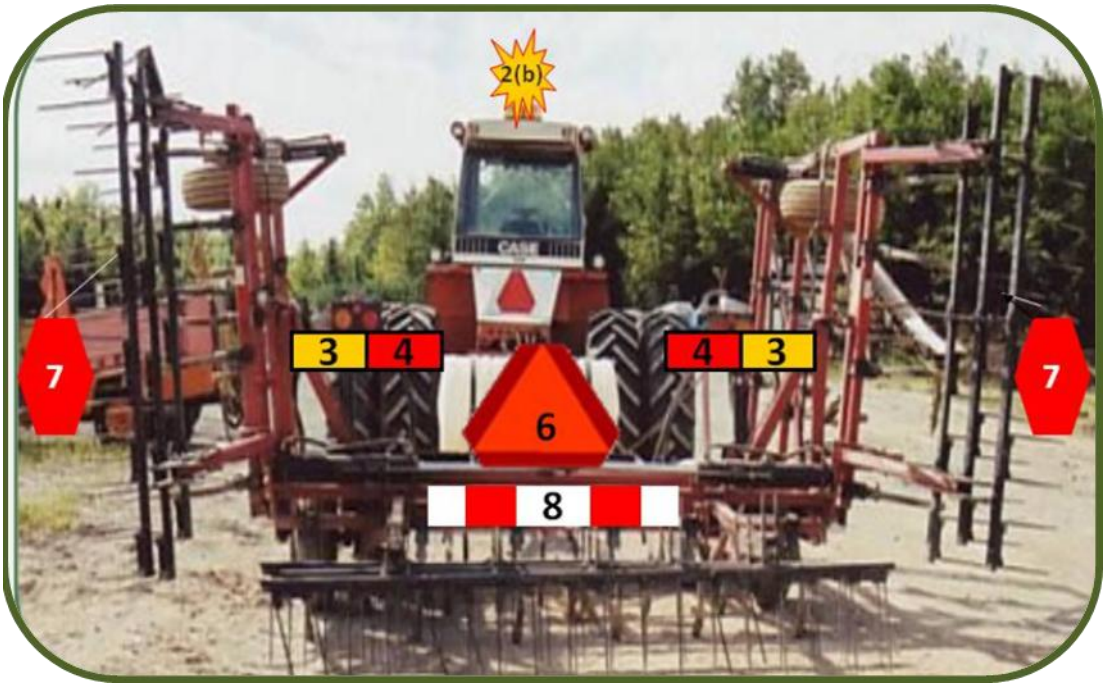
Manure Tank

2(a) or 2(b) or 7 may be used instead of 2(c) depending on equipment width.

2. Tillage and Cultivation Equipment

Harrow

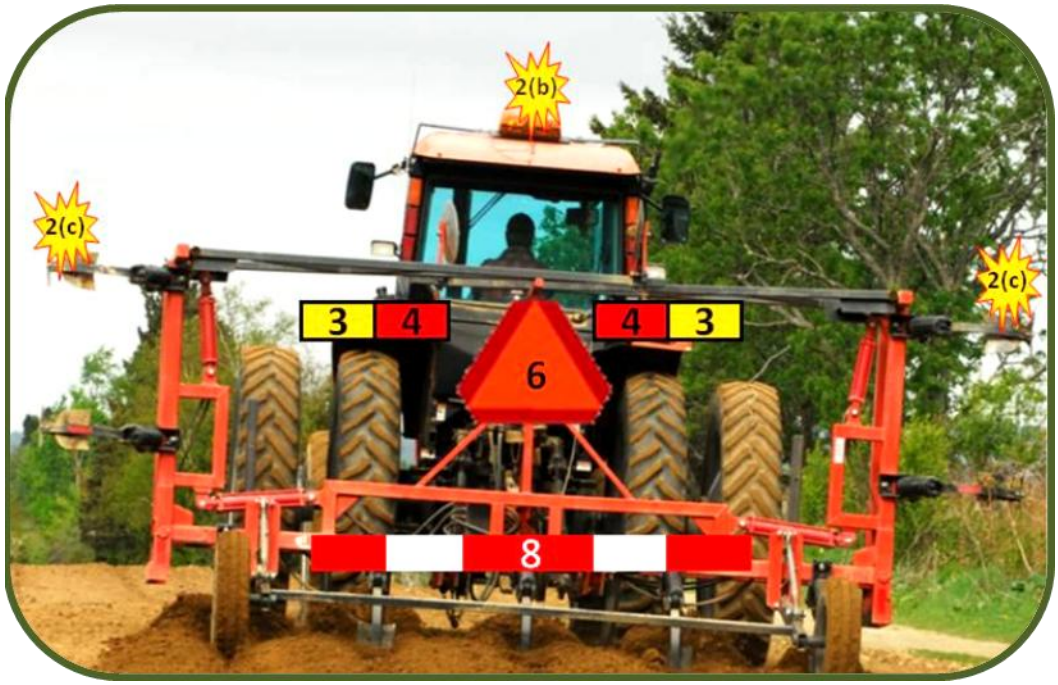
Flags (7) are both an economical and easy way to mark extremities of folding equipment.



Harrow

It is especially important to mark extremities of vehicles with wide tires. Tillers can be marked with 2(a), 2(b), 2(c) or 7 depending on vehicle width.

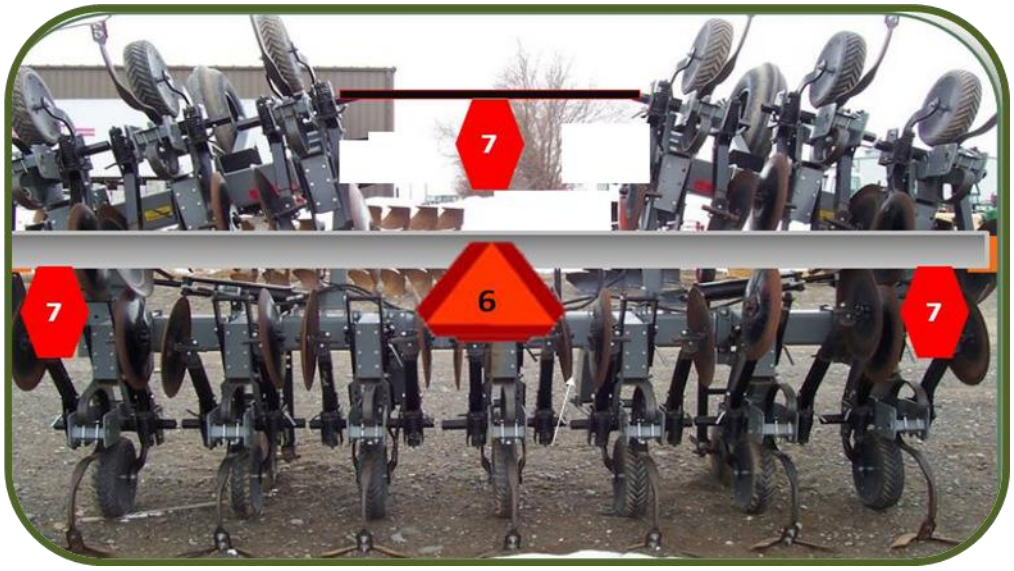
Moldboard Plow



Cultivator

Sub-Soiler

If possible, use bars to mount flashing extremity lights, otherwise use flags (7).



Cultivator

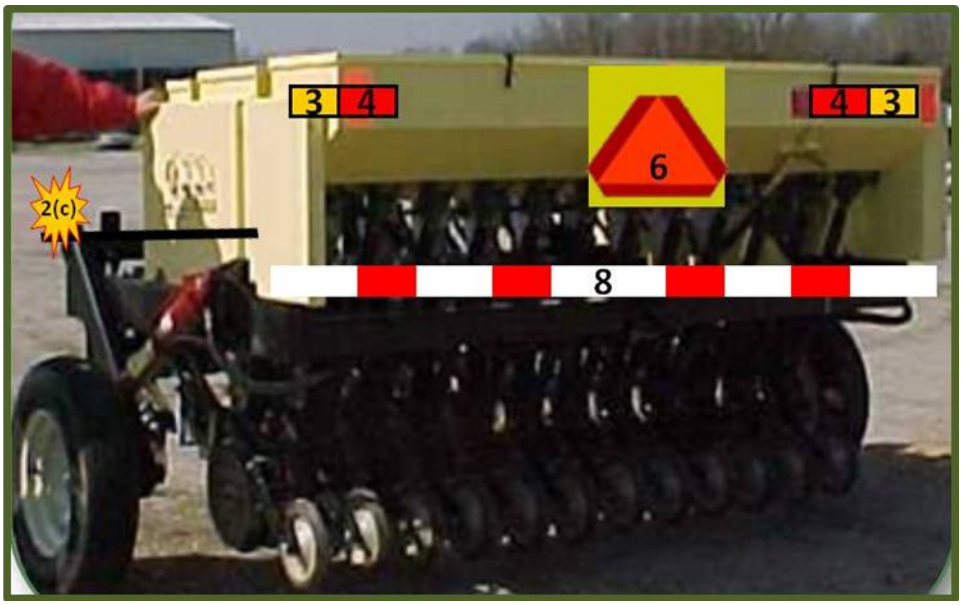
Heavy Duty Cultivator

Potato Hiller

3. Planting Equipment

Air Seeder

Air seeders can only travel on road network in folded position.



Grass Drill

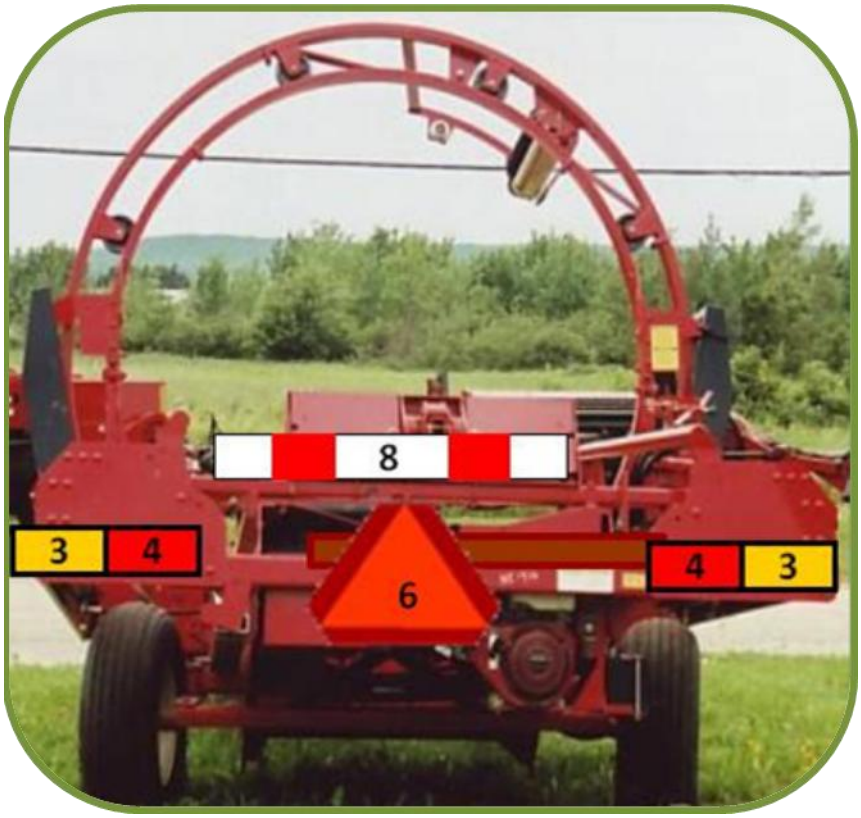
Seed Drill

Potato Planter – Back

4. Harvesting and Storage Equipment

Baler - Front

Lights on top baler must be visible from both front and back.



Bale Wrapper

Bale Processor – Back

Grain Harvester – Back View

Use of retro-reflective tape (8) is also recommended.

Baler Back View

High equipment should be lighted at top – providing good visibility in both directions.

4-row Self-propelled Potato Harvester

Escort vehicle required for equipment of such width. Use of retro-reflective tape (8) is also recommended.

Corn Harvester

Potato Harvester – Rear

Use of retro-reflective tape (8) is also recommended.

Potato Harvester - Front

Combine – Front

Combines need special attention because of width.
Extra-wide vehicles like combines should have flashing amber extremity lights on the sides of the vehicles to reduce the danger of sideswipes.

Combine Front with Bar

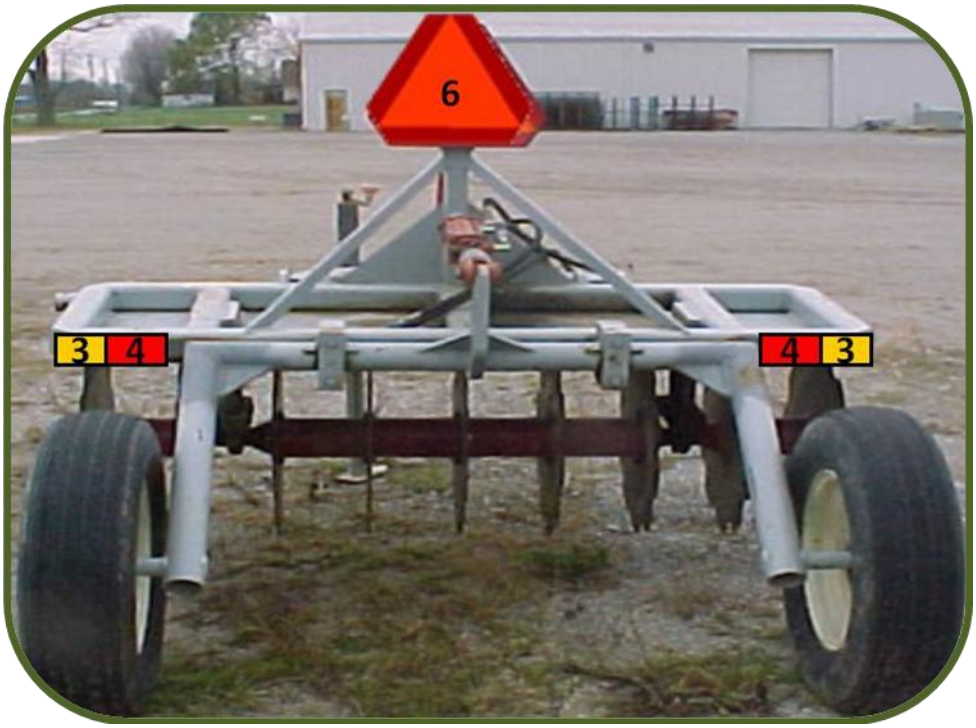
Combine – Back

Use 2(b) if equipment is less than 12 ft. in width; otherwise, use 2(c).

Dump Wagon

Use 2(b), 2(c) or 7 depending on vehicle width.

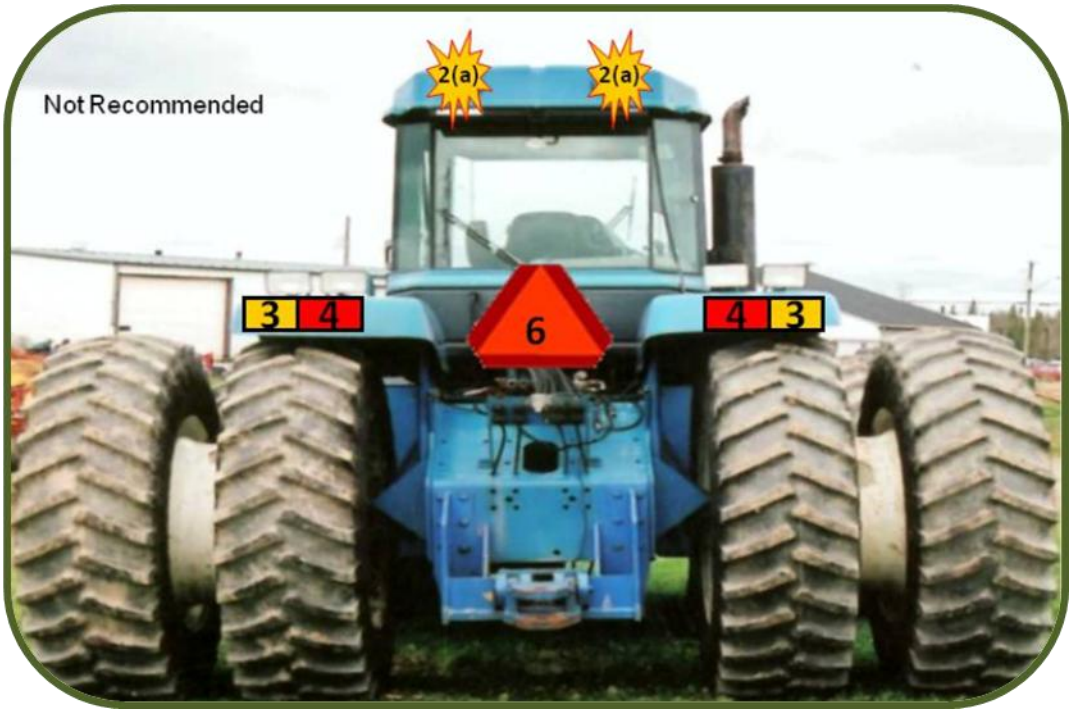
Hay Tedders



Crimper

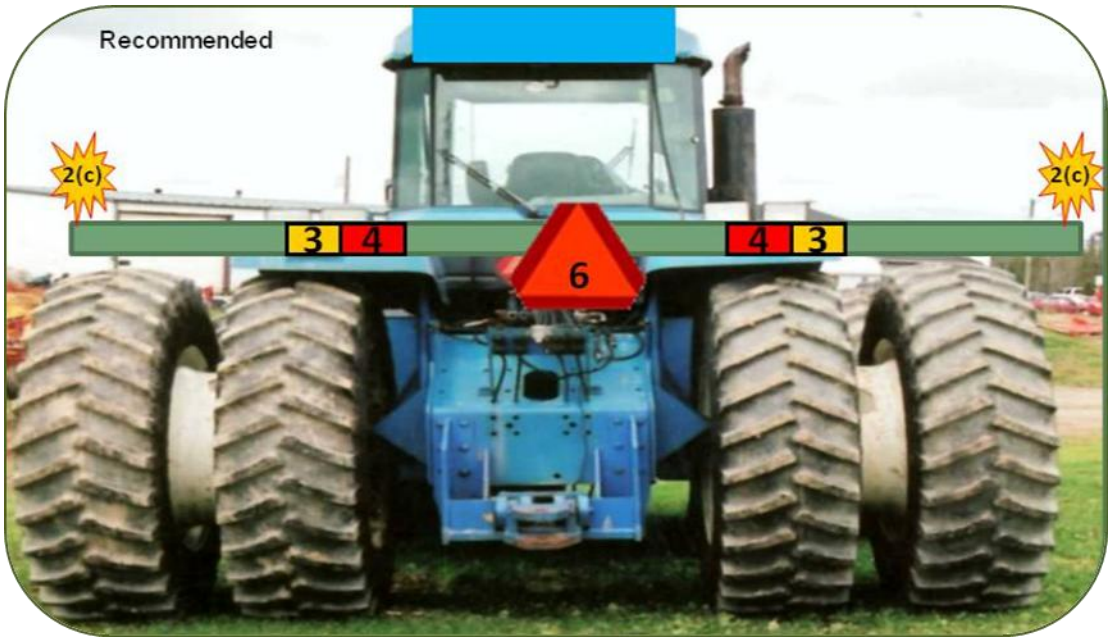
Smaller equipment also requires adequate signing and lighting.

Forage Mower – Self-propelled



Wide Wheel Tractor

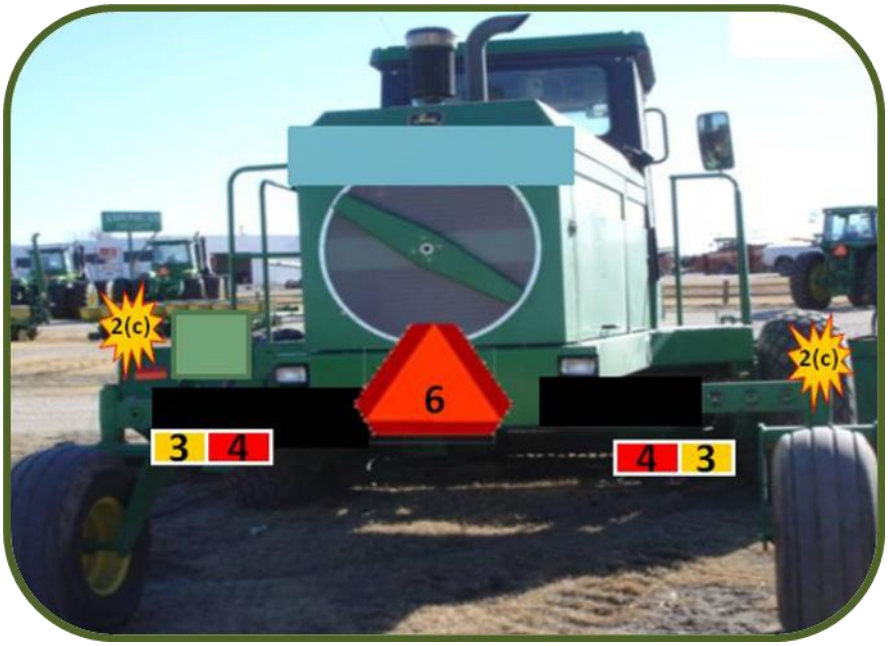
Wide wheel units need extremity lighting because black tires are particularly hard to see during darkness. Lighting gives a better idea of the size of equipment from a distance.



Wide Wheel Tractor with Bar

Windrower

Windrower with Bar



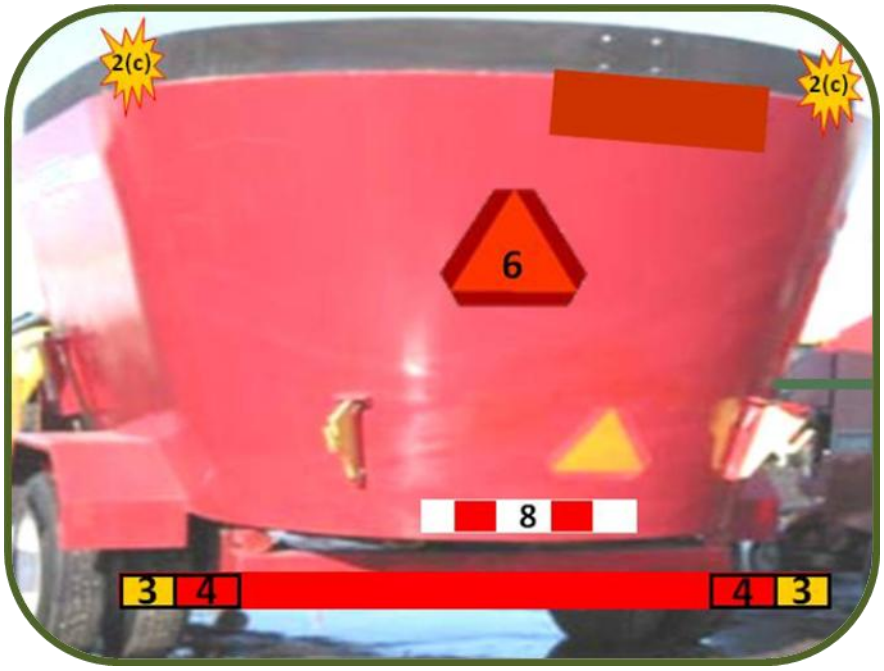
Windrower – Back

Mount extremity lighting where it can be seen from both front and back if possible.

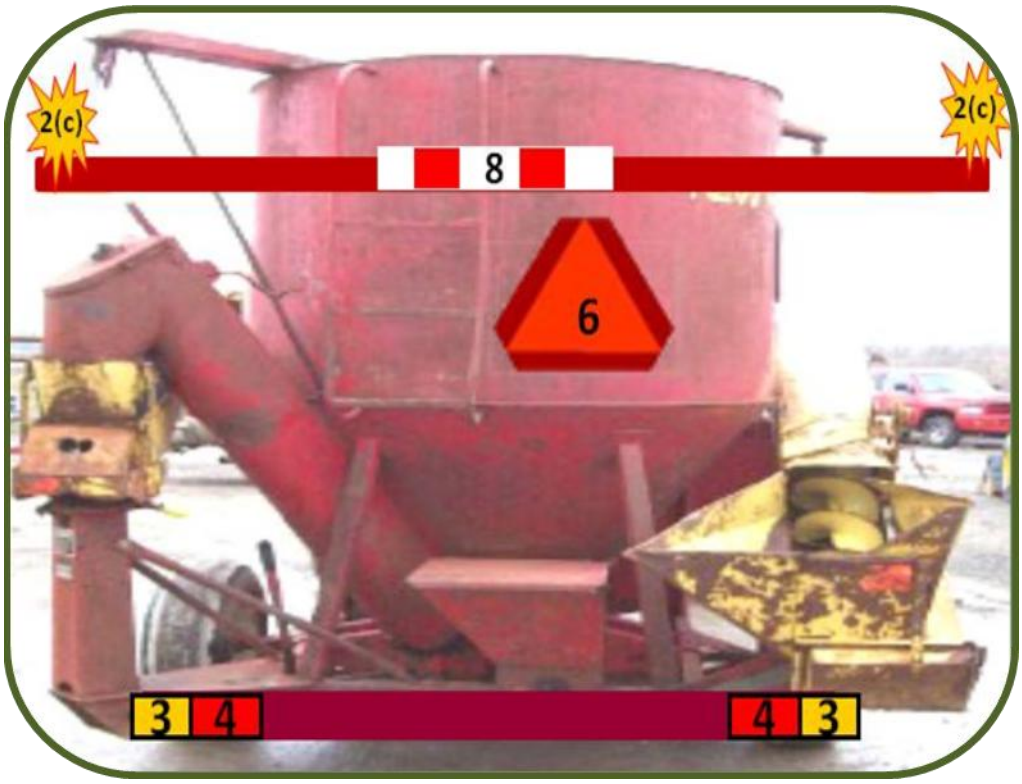
5. Material Handling Equipment

Feeder Wagon - Front

Feed Mix Wagon – Front



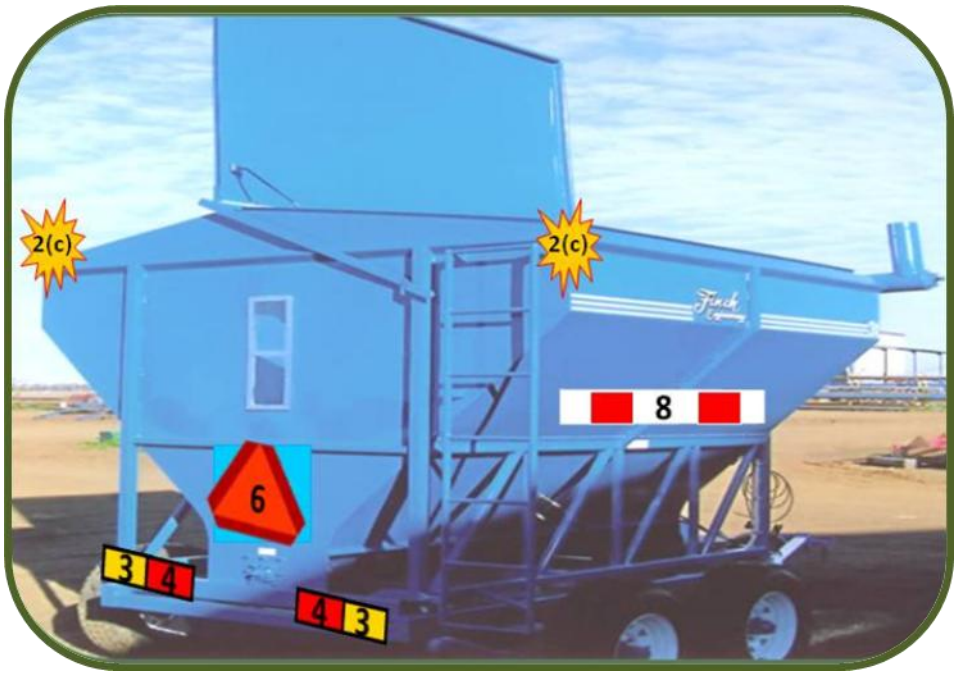
Feed Mix Wagon – Back



Grinder – Rear

Grain Blower – Rear

Visibility of farm equipment can be greatly improved by placing retro-reflective tape (8) at the extremities on all sides of farm implements. This material can be seen from 150 metres (500 ft.), which dramatically helps motorists see the equipment and judge its width.



Grain Buggy – Back

6. Other Equipment

Flail Mower

ASAE: American Society of Agricultural Engineers.

American National Standard ANSI/ASAE: A standard approved by the American National Standards Institute and the American Society of Agricultural Engineers.

CSA: Canadian Standards Association.

Conspicuity: *To be clearly visible and attract notice.*

Day-time: Means travel is permitted from sunrise to sunset.

Extremities: An extremity is the extreme projection of the equipment in question. For example, the extremity of a tractor may be the protruding axle stubs. On a cultivator it may be the protruding shovels when folded into transport position.

Head lights: A white colored light source used to illuminate the path of travel of equipment for operators, and to identify moving equipment for oncoming traffic on public roads. Head lights must conform to SAE Standard J975.

Implement of Husbandry: Means a vehicle designed and adapted primarily for agricultural, horticultural or farming operations.

Left Side: The left hand side of a vehicle as determined from the rear of the vehicle facing in the direction that it moves.

Lighting: Lights used to illuminate and identify various parts of an equipment to mark its size and position on a highway.

Markings: Signs and reflectors or reflective materials used to identify various parts of a machine and mark its size and position on a public road.

Night-time: Means travel is permitted from sunset to sunrise.

Reflective Materials: Reflective materials must meet the reflective requirements of ANSI/ASAE Standard S276.3 contained in Federal/Canada Motor Vehicle Safety Standard 108.

Right Side: The right hand side of a vehicle as determined from the rear of the vehicle facing in the direction that it moves.

Self-propelled Equipment: Equipment that is conveyed by its own power source.

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12. **Jesse LaPrade, Ph.D. Extension Environment and Farm Safety Specialist, Auburn University. www.aces.edu**

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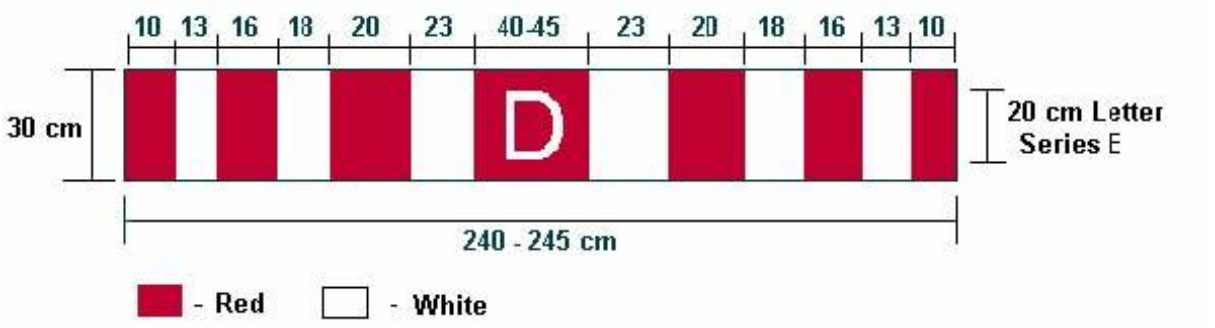
www.wiscash.uwex.edu/Pages/StatisticsAndMiscDocuments/MiscDocuments/Lighting

"D" Sign Specifications

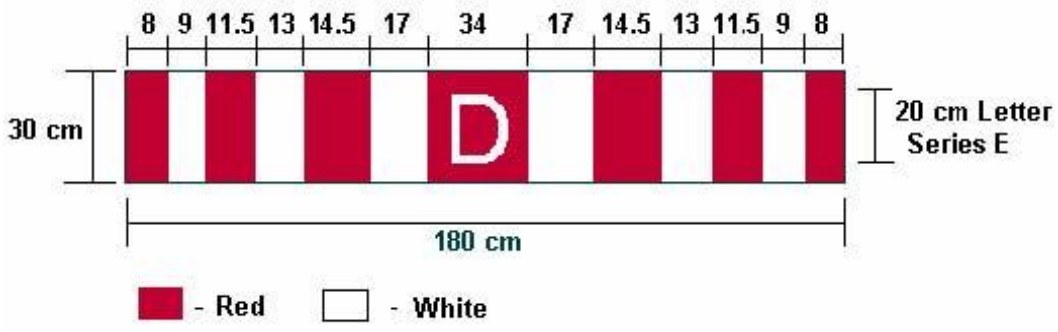
Large Sign for Oversize Vehicle:

Section Widths (cm)



Small Sign for Escort Vehicle:

Section Widths (cm)



"D-sign" specifications	
Dimensions	See diagrams above
Color	White – level II reflectance and stop sign red (# 712 3M) or equivalent
Material	Retro-reflective, on a hard flat surface
Position	Visible from the rear and front of the over-dimensional vehicle or load

Further Information

For information on vehicle weights and dimensions contact:

Mr. Denis Goguen
Policy Analyst
Transportation Policy Branch
Department of Transportation
Kings Place, Fredericton, N.B
Phone: 506-453-2802

For information on vehicle lights, reflectors and signs contact:

Mr. John Lunney
Manager Commercial Vehicle Enforcement
N.B. Department of Public Safety
Kings Place, Fredericton, N.B.
Phone: 506-856-2958