

Farm Equipment Safety on Public Roadways

Spring brings on a burst of activity on the farm as planting and moving livestock to pasture proceeds. With the buzz of activity comes an increase of encounters with farm equipment on the road. Equipment operators, agricultural industry personnel and motorists all play a role in safely sharing the road while agricultural operations intensify.

Rural roads pose unique dangers with curves, slow-moving vehicles, dust, poor road conditions, roadway entrances with reduced visibility, narrow lanes, and more. The presence of agricultural vehicles on roads adds a unique set of safety concerns which are amplified as the size of agricultural equipment continues to grow.



According to the Canadian Agricultural Injury Surveillance program, 13 percent of farm-related fatalities across Canada are traffic related. The most frequent single-vehicle collision involving farm equipment, occurs when a farm tractor is driven too close to the shoulder of the road and rolls into the ditch.

The Traffic Safety Act and regulations may change from year to year. It is the responsibility of every driver using the road to keep up to date with the rules.

Common multiple-vehicle collisions involving farm equipment occur when the farm machine is struck as it is turning onto a public road. Rear end collisions with farm vehicles and equipment occur due to the speed differentials between cars and tractors or because the motorist underestimated the size or speed of the farm equipment. Farm equipment turning left off of a public road also account for a number of the farm vehicle related collisions, often when the operator failed to signal or the signal was not visible.

All provinces have rules governing everything from the licensing requirements of machinery and drivers, to speed limits and hours of operation of slow-moving vehicles like farm equipment. The following is a quick review of some of the rules or best practices for operating farm equipment and sharing the road with farm operators, on public roads in Alberta. Please refer to the *Traffic Safety Act* and Alberta's Operator Licensing and Vehicle Control Regulation for further legislation information.

Tips for Motorists

Here are some guidelines and best practices to help motorists share the road with farm equipment:

- Be aware of slow moving farm vehicles: Most farm equipment operating on public roadways are travelling at speeds between 25 – 40 km/hr, much slower than the average speed of most vehicles on the road. It is therefore important for motorists to be alert, watching out for farm equipment traffic as they travel in rural areas.
- Motorists also need to be patient as they are following and moving around farm equipment travelling at these slower speeds. When encountering slow moving equipment watch for flashing lights as an immediate warning to slow down, keep your distance and assess the situation. An example that is often cited is that if you are driving 80 km/hr and come upon farm equipment that is driving 25 km/hr, it will only take six and half seconds to close a gap the length of a football field between you and the farm equipment. Slow down to increase the time you have to react.
- Motorists should not assume that a producer knows they are there. Motorists should make sure the operator is aware of their intentions and watch for hand signals, and turn signals.
- Equipment operators may not always be able to pull over without tipping or running into an object. Sometimes the shoulders cannot sustain the load and operators are avoiding a rollover by staying off of the shoulder.
- Do not pass in the oncoming lane of traffic, unless you are able to see clearly in front of you and the farm equipment you are passing. Do not pass if there are hills or curves which may block your view. Do not pass if you are approaching any intersections, railroad crossings, or bridges. Check your rear-view mirror for other approaching vehicles who may also be trying to pass.
- Do not drive in equipment blind spots where operators cannot see you. Keep back a safe distance, at least 15 metres.

Tips For Farm Equipment Operators

Agricultural producers also need to do their part as they share the public roadways, ensuring they are moving in a safe and legal manner. Whenever taking to the road with farm machinery, check equipment and roadway habits to reduce the risk of a roadway incident.

Here are a few of the specific requirements for agricultural tractors, self-propelled implements and towed farm equipment traveling on public roadways in Alberta:

- Must have a **rear-view mirror** that gives the driver a clear view of the road behind the implement and a clear view of other vehicles approaching from behind.
- Must display a **slow-moving vehicle (SMV) sign** that is attached to the rear end of the machine and is clearly visible to all traffic at the rear of the machine. Implements being towed must have their own slow-moving vehicle sign which is clearly visible at the rear of the implement. SMV signs are mandatory on equipment traveling less than 40 km/hr.



- Although not mandatory, place warning flags to mark the widest part of the vehicle/implement to increase visibility. Flags should be 40 cm x 40 cm facing and visible to oncoming and following traffic.
- A rubber tired farm tractor equipped with a dozer blade can travel on a public road during daylight, if there are **warning flags** on the widest part of the tractor or blade; and if used during darkness, **warning lights** or illuminated warning flags on the widest part of the equipment.

Some rules for nighttime travel on public roadways:

Nighttime or darkness is defined by the, *Use of Highway and Rules of the Road Regulation*, as the period commencing one hour after sunset and ending one hour before the following sunrise or when atmospheric conditions do not allow enough light to clearly see a person at a distance of 150 metres.

Nighttime travel requirements for tractors, self-propelled farm equipment and towed farm implements in Alberta:

- Must have at least two, but not more than four, **head lamps** visible from the front.
- If a tractor, self-propelled implement or implement is wider than 2.6 metres, must display **warning lights** at the widest part of the vehicle/implement. The warning lights are to be continuously lit, showing amber to the front and red to the rear and must be visible at a distance of 150 metres.
- Must have a **slow-moving vehicle sign** which is clearly visible to the driver of a vehicle approaching from the rear.
- Must have at least **two red tail lamps** visible at a distance of not less than 150 metres to the rear. Towed implements must also have at least two red tail lamps.
- Turn signals are not required however if your vehicle does have them, keep them in good working condition.
- Although not mandatory, you should use reflectors to provide better visibility when you move farm machinery on roads at night, amber on the front and red on the rear.

Other best practices for farm equipment operators on public roadways:

- Defensive driving is critical to the safety of operators who move farm equipment on public roads.
- Do a walk-around to make sure all warning flashers, flags, lights and slow moving vehicle emblems are clean, visible, not obstructed and working properly.
- Use flashing amber lights to increase motorist awareness when entering the roadway, but turn rear spotlights off, as they are often mistaken for headlights.
- Try to avoid major roadways during high traffic periods, rush hour, bad weather or at night if possible.
- Although not mandatory, if it is necessary to travel long distances on the roadways, consider using pilot cars in front and behind of the farm equipment, especially at night. Make sure pilot cars use their flashing lights or hang a bright flag in the window.
- Watch for passing vehicles when making left turns.
- Avoid overhead powerlines.

- Stay alert for hazards such as soft shoulders, narrow bridges, loose gravel, potholes or other objects in the path of travel.
- Pull over to allow traffic to pass, if road and shoulder conditions are safe.
- Check all towed equipment to make sure it is properly secured and balanced along with having proper lighting and reflective equipment. It should also be towed by equipment that is able to tow it adequately and stop it under control.
- Make sure all employees or family members who may be operating farm equipment on public roadways are trained adequately for the size and complexity of the equipment and are fully aware of and compliant with the rules of the road.
- Though children 14 years and older are allowed to operate farm equipment on public roads, ensure they have the training and experience to manage the responsibility of operating the equipment among public traffic. (Alberta's Operator Licensing and Vehicle Control Regulation prohibits a person who is less than 14 years old from operating an implement of husbandry on a roadway.) All traffic laws apply to tractor operators using public roads even though a driver's license is not required.
- Two separate means of attachment when towing implements behind a tractor is also recommended. In addition to safety chains, always use a drawbar, hitch or cable, even if just travelling a short distance down the road.
- If the farm equipment came with a seat belt, you must wear it while travelling on public roadways.
- Legislation governing impaired and distracted driving pertains to the drivers of farm equipment that is being operated on public roads. Use cell phones appropriately and do not text while driving. For more information visit www.saferoads.com.

We have only touched on a few of the rules that are applicable to operating farm equipment on public roadways in Alberta. A few other examples for consideration:

- Maximum height for farm equipment or loads is 4.15 metres (may qualify for permit if higher)
- Maximum width of farm vehicle or trailer 3.8 metres (may qualify for permit if higher)
- Moving loads of hay higher than 4.15 metres or wider than 2.6 metres requires a permit
- Moving grain bins requires a permit if the load is higher than 4.15 metres or wider than 2.6 metres

Whether you are an agricultural producer or a motorist traveling on roadways, remember we must all obey the traffic rules. Courtesy and patience are key to safety as we share our public roads with agricultural equipment.

Further details of farm equipment transportation can be found in the Alberta Agriculture and Forestry Publication: [Safe Transport of Farm Equipment in Alberta](#).