

# Working safely with tractors

## Frequently asked questions

Tractors can cause serious injuries and fatalities on farms and ranches regardless of the operator's age or level of experience.

In a five-year period, 184 machinery-related injuries occurred on B.C. farms and ranches. Four of those were fatal injuries. Some of the most serious injuries resulted from:

- Clothing or body parts that were caught in the power take-off (PTO) of a tractor
- Rollover incidents involving tractors that didn't have rollover protective structures (ROPS)

This document answers a few frequently asked questions about PTOs, ROPS, and other aspects of working safely with tractors.

### Why is a PTO hazardous?

The fast-spinning external shaft of a PTO can entangle clothing or body parts. This can result in serious injury or death.

### How can I keep myself and my workers safe while using or working around a PTO?

The key to safety with PTOs is to identify the hazards and control the risks, as outlined below:

- Use the driveline recommended for your machine, and ensure it is securely locked onto the tractor.
- Ensure all shields and guards are maintained and in place. Make sure safety labels are on the equipment. Inspect driveline guards to ensure they have not become stuck to the shaft.



- Ensure that everyone who uses or works around a tractor with a PTO is familiar with all machine operations and controls.
- Don't use shortcuts to get around the equipment, such as moving within the space where the PTO is connected to the tractor.
- Stop the tractor engine and disengage the PTO before performing maintenance or addressing any issue related to an implement pulled by the tractor (e.g., a clogged baler).

### Why should I use a rollover protective structure (ROPS)?

Tractors are at risk of rolling over when they:

- Operate on uneven ground
- Drive over obstacles
- Suddenly change their travel path
- Operate with attachments (e.g., forks, buckets, mowers) at the front or rear of the machine

Without a ROPS in place, the operator can be seriously injured or killed if the tractor rolls over.

Whether you're a farmer, a rancher, or a hobby tractor operator, ensuring the ROPS is up and wearing your seatbelt can save your life.

Under the Occupational Health and Safety Regulation, all tractors require ROPS (except as noted in the next section).

## Are there situations in which a tractor can be used without a ROPS?

In some situations, a tractor can be used without a ROPS. To determine if this is an option, a written risk assessment must be carried out, and the result of the assessment must confirm a low risk of a rollover. The risk assessment must consider the following:

- The stability of the equipment
- The area in which the machine is being operated
- The nature of the activities
- The training and experience of the operator

The risk assessment must be done by a qualified person. Under the Regulation, qualified means "being knowledgeable of the work, the hazards involved and the means to control the hazards, by reason of education, training, experience, or a combination thereof."

AgSafe BC can help with a tractor rollover risk assessment and provide additional resources to assist you.

## How can I reduce the risk of a rollover?

- Drive at a safe speed and know the terrain slopes and conditions.
- Ensure all loads are properly secured, including large bales and objects being raised above the level of the operator's head.

- Turn on level ground whenever possible, and avoid soft shoulders.
- When operating a tractor with a front-end loader, keep the bucket low when travelling and turning. Never leave the tractor seat with the bucket raised.

## What else can I do to reduce the risk when operating a tractor?

- Read and understand the operator's manual.
- Check to ensure the tractor is in good working condition before you operate it.
- Ensure brakes are in good condition, working well in both directions (forward and reverse), and properly locked for high speeds. Adjust the brakes on both sides evenly.
- Turn off your tractor and ensure the parking brake is on and operating effectively before you dismount.

## Where can I find more information?

An [equipment and machine safety checklist](#), tractor rollover videos, and other safety resources are available at [worksafebc.com/agriculture](https://worksafebc.com/agriculture).

If you have any questions about tractor safety or any other workplace health and safety matters, call our Prevention Information Line at 1.888.621.7233.

AgSafe offers tools and resources, on-site consultations, and a tractor safety awareness course. For more information, contact your regional AgSafe safety consultant, call 1.877.533.1789, or visit [agsafebc.ca](https://agsafebc.ca).