

## Farm safety - machinery

Poorly used or faulty machinery is a major cause of death and injury on farms. Common tractor accidents involve roll-overs, run-overs and unguarded power take-off (PTO) shafts. Other dangerous machinery includes quad or ag bikes (also known as all-terrain vehicles, ATVs) and motorbikes, chain and bench saws, harvesters, generators, augers and earth-moving equipment. Farms make up only 10 per cent of Victorian workplaces, but they account for between 25 and 50 per cent of all work-related deaths (fatalities) in any given year.

One in four unintentional farm deaths are caused by unsafe tractor operation. Tractors have a high centre of gravity and can flip and crush the driver if not fitted with a roll-over protection structure (ROPS). Hands, hair and clothing can be caught by unguarded PTO shafts or other unguarded moving parts such as pulleys and belts. People can be injured by front-end loaders, falling from a moving tractor or being struck by its wheels.

Machinery accidents can be prevented by keeping the machine in good repair, fitting and ensuring all safety equipment (such as guards, safe access platforms and ROPS on tractors) are operating with the machine at all times.

### Safety measures

General safety suggestions include:

- Read and follow the manufacturers' instructions for operation.
- Don't remove or modify safety features.
- Ensure that everyone working on the farm is thoroughly familiar with operating procedures and safety requirements for any machinery they use.
- If needed, replace and fit guards to cover the moving parts of machinery – for example, a PTO guard.
- Make sure that tractors are correctly ballasted or weighted for particular jobs.
- Fit a falling object protective structure (FOPS) on the front-end loader.
- Keep a well-stocked, up-to-date first aid kit in an accessible area.

Always wear appropriate protective and visible clothing.

### Train workers thoroughly

Your farm is a workplace and you are responsible for the health and safety of workers and visitors. Inexperienced workers are much more likely to be injured in farm accidents. You can prevent injuries in many ways:

- Supervise inexperienced workers at all times.
- Make sure your workers are thoroughly trained in equipment operation and safety.
- Keep all equipment in good repair.
- Warn workers of potential hazards and insist they undertake training and use equipment safely.
- Only allow a worker to perform a task when you are confident they can handle it.
- Keep visitors and children well away from operating machinery and warn them of potential hazards.

### Safe tractor operation

Keep your tractor in good repair and immediately fix or replace faulty parts. Make detailed notes on services and repairs in a logbook and do a general maintenance check on the tractor every day before use. If you are uncertain about how to properly service and maintain your tractor, it is recommended you have a close working relationship with your local machinery expert.

Other safety suggestions include:

- Devise safety procedures that everyone on your farm must follow, such as only starting the tractor when sitting in the driver's seat and turning the tractor engine off before leaving the driver's seat.
- Install ROPS and seatbelts on all tractors.
- If using a front-end loader, install FOPS.
- Don't allow anyone to stand near the tractor when it's being started.
- Don't operate your tractor close to dams, pipes, drains or powerlines, on steep slopes or near other potential hazards.
- Remember that tractors have a high centre of gravity and are more likely to tip when riding over hilly ground.
- Don't carry passengers.
- Make sure that steps and control pedals are non-slip and kept clean.

## **Unguarded power take-off shafts are extremely hazardous**

All moving machinery parts should be guarded so that clothing, hair or fingers can't get caught. Power take-off (PTO) shafts can cause serious injury and death. Safety suggestions for PTOs include:

- Guard the entire length of the shaft.
- Anchor the shaft guard to stop it from rotating.
- Enclose the joints with a guard.
- Keep shields in place when using the tractor.
- Always make sure all guards and shields are re-attached if removed during maintenance.

## **Protect children from tractor accidents**

Children account for one in seven farm-related fatalities, and children under the age of sixteen account for one in four tractor-related deaths. You can protect children from harm in many ways:

- Warn children of the hazards and make them aware of safety issues.
- Always remove keys from tractors.
- Separate play areas from active farm working areas.
- Make sure that equipment storage areas are securely locked and inaccessible.
- Don't leave running machinery unattended.
- Lower your tractor's front-end loaders or three-point linkages after use.
- Don't allow children to ride on or drive the tractor.
- Make sure proper training is undertaken before allowing young adults to operate machinery.

## **Draw up an emergency plan**

An emergency plan is vital. Some suggestions include:

- Ensure easy access to a suitable and well-stocked first aid kit.
- Make sure at least one person on the farm is trained in first aid.
- Keep emergency numbers and correct addresses next to the telephone.
- Plan routes to the nearest hospital – make sure it has an operational emergency department.
- Regularly talk through your emergency plan with your family and other workers.
- Make sure your children understand what to do in an emergency.

## **Where to get help**

- Your doctor
- In an emergency, always call triple zero (000) for an ambulance
- WorkSafe Victoria Tel. (03) 9641 1444 or 1800 136 089
- National Centre for Farmer Health Tel. (03) 5551 8533
- Victorian Farm Safety Centre Tel. (03) 5335 3703
- Department of Primary Industries Tel. 136 186
- Farmsafe Australia Tel. (02) 6752 8218

## Things to remember

- Common tractor accidents involve roll-overs, run-overs and unguarded power take-off shafts.
- Fit your tractor with a roll-over protection structure (ROPS) and seatbelts.
- Ensure that everyone working on the farm is thoroughly familiar with operating procedures and safety requirements for any machinery they use.
- Organisations such as WorkSafe Victoria, Farmsafe Australia and the Department of Primary Industries offer information on the safe operation of tractors and other farm machinery.

**This page has been produced in consultation with, and approved by:**

National Centre for Farmer Health

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