



Falls

What is the issue?

Working at heights in and around the dairy.

Why is it an issue?

There is the risk of a fall for people working on roofs, the mezzanine floors or platforms of dairies, or climbing equipment such as silos and milk vats.

What are the consequences of ignoring it?

Falls, particularly those that occur because someone has been working at a height, can result in serious injuries and even death.

Victoria's *Falls from Height Regulations* apply to work conducted 2m above ground.

How safe is your dairy now?

Do any of the following examples sound like your dairy farm? They are all poor work practices that could lead to a serious fall. For instance:

- working on or near fragile surfaces, such as badly rusted corrugated iron or fibreglass roofs, with no guarding, safety mesh, catch platforms or alternative fall protection measures in place;
- climbing on rails or pipelines to service equipment;
- using the mezzanine as extra storage space without having installed adequate steps or handrails;
- working from the bucket of a front-end loader or a pallet lifted by a forklift;
- putting ladders on slippery or uneven surfaces and not securing them so that they can't move forwards, backwards or sideways;
- using ladders inappropriately, e.g. using an ordinary straight ladder as a horizontal working platform, or subjecting a ladder to loads over its load rating;
- using inappropriate equipment to reach heights, e.g. drums and boards; or
- climbing ladders on grain and milk silos without fall protection.

What can be done right now?

The best way to prevent a fall is to do the job from ground level. When assessing the hazards on your farm, consider what jobs might be done differently, so that you and your workers do not have to work off the ground.



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Ladder safety

Portable ladders should not be used to access silos.

Ladders can still be used to access heights, but they must stand on a stable and firm footing to be used safely. Single and extension ladders should be set at a slope of 4 to 1, and step ladders in the fully opened position.

Other ladder safety tips to consider include:

- ladders should be secured at both the top and bottom;
- select a ladder suitable for the job;
- use ladders made to the Australian Standard with non-slip runs;
- keep the ground and floor around the height access points clear of equipment and debris;
- never work alone at heights;
- store ladders horizontally;
- do not over reach;
- do not go beyond the recommended safe step;
- keep your ladder close to the job at all times; and
- maintain three points of contact with the ladder at all times.

What are the next steps?

Installing barriers and guards on equipment can stop workers falling a distance that will cause an injury. For instance, it is becoming common for the fixed ladders on silos to be enclosed in a cage that is intended to provide a barrier to restrict the fall distance, and provide a number of contact points to help a farmer ascend or descend a silo safely.

The silos are also often designed to have access restricted by a ladder guard or removing the lower section of the ladder. Ladder guards can be effective in preventing unauthorised access, including that of children, but you and your workers must refit them when a job is finished.

Some modifications that could make your grain silo safer include:

- installing feed blower tubes;
- remote ground opening lids;
- grain/feed level sight glasses; and
- guards for silo ladders that prevent unauthorised access (especially children).



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The first three modifications will reduce the number of times you will need to climb the silo.

If ladders have to be used to access the silo:

- the work platform at the top of the ladder should have a minimum width of 600mm and a depth of 900mm;
- the platform must have handrails, toe boards and a mid-rail at 450mm with a top rail between 900mm and 1100mm; and
- ladder cages must be fitted for heights above 6m.

Family, workers and visitors need to be told about the use and placement of fall protection devices, such as guards. This type of information can be supported by safety signs, such as 'Authorised access only' or a picture showing the presence of a fall hazard. However, these signs should never be used as the only way of informing people about the risks. Your local safety equipment supplier should be able to advise you on suitable signage.

Safety harnesses can provide some protection from falls, but only if they are used properly. Professional advice needs to be sought about the selection and use of harnesses. Only trained and competent people should use harnesses.

Also, harnesses are only as reliable as the anchor points used and few silos or buildings are designed with suitable anchor points. Without anchor points, most harnesses can't be used.

Safety harnesses rely on people getting them out, fitting them properly and using them correctly, and that all requires time. If you have not got the time, you won't use them, so consider using more effective means of fall protection.

Milk vats

Milk vats present a falling risk that is unique to dairy farms.

Jobs that may expose workers to the risk of falling from a milk vat include:

- visually inspecting the inside;
- entering it for cleaning;
- checking its content level; and
- the service or repair of the agitator motors.

The best way to reduce the risk of falling from a milk vat is to have the jobs mentioned above performed from the ground. This can be achieved by:

- using self-cleaning milk vats;
- using bottom-entry access hatches;



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- locating outlets, inlets and measuring devices near the ground; and
- installing milk vats horizontally.

Before you buy new equipment, you will have to consider access (including for servicing), self-cleaning and water quality issues.

If the tasks mentioned earlier cannot be performed from the ground, and predictable and on-going access to the top of the milk vat is required, it must be fitted with a permanently secured access ladder that complies with Australian Standard 1657. Typically this will mean:

- The work platform at the top of the ladder is at least 600mm wide and 900mm deep.
- The platform has handrails, toe boards and a mid rail at 450mm, with a top rail between 900mm and 1100mm.
- Ladder cages are fitted for heights above 6m.

In many cases, the height of the milk shed may have to be considered in the design of a complying work platforms. For instance:

- the work platform guard railing may need to be modified, due the height of the ceiling, e.g. a mid rail may be enough to control the risk of a fall, due to the distance from the work platform to the ceiling; and
- work platforms may need to be attached to the shed floor, ceiling, wall or other suitable attachment and anchorage points.

In some cases a milk vat is considered a confined space. If this definition applies to your milk vat, you will have to address all the regulations and guidelines concerning working in a confined space before entering the vat.

What you should be considering longer term

Dairy equipment and buildings should be designed so that no one is encouraged to work at a height of more than 2m without adequate fall protection.

The risk of falling is one of the things you should add to your list of considerations when buying a new piece of equipment, tank or building.

Select and design equipment that eliminates the need to work at heights. For instance, some tanks, silos and vats are designed with inspection hatches or view points close to the ground that make it unnecessary to use a ladder.

What actions are not optional

The *Falls from Heights Regulations* require the risks of working above 2m to be controlled.



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Summary of legal requirements for working on roofs as per regulations

Assess the risk of a fall by taking into account the nature and duration of the task, the physical surroundings in which it is to be performed and the conditions during which it is to be performed.

Eliminate the risk or, if that is not practicable, reduce it so far as possible by arranging for the task to be undertaken from the ground or a solid construction. If that is not practical, try using the following techniques, which are listed from the best to least preferred options:

- a passive fall prevention device, e.g. temporary work platform, roof safety mesh or guard-railing;
- a work positioning system, e.g. industrial rope access, travel restraints or drainers hoist;
- a fall injury prevention system, e.g. safety net, catch platform or harness system; or
- a fixed or portable ladder, or an administrative control, e.g. work procedures.

Make sure that any solution (risk control) that is used or is available to control the risk of a fall is properly maintained.

Provide any employees or contractors who are required to undertake any task identified as involving a fall hazard with all the information, instruction and training that is necessary for them to perform their work in a safe manner.

When assessing the risk of a fall, take into account the nature and duration of the task, the physical surroundings in which the task is to be performed and the conditions during which the task is to be performed.

Where to go for more information

<p>Victorian WorkCover Authority Farm safety</p> <p>Falls prevention - advice and compliance with OHS regulations 2003 in the agricultural sector</p> <p>Falls prevention - milk vats Falls prevention – silos</p> <p>Falls prevention - solids separation pits, effluent ponds or lagoons</p> <p>Falls prevention - working on roofs</p>	<p>www.worksafe.vic.gov.au</p>
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<p>Generic prevention of falls guides</p> <p>Basic steps to preventing falls from height</p> <p>Contractor management</p> <p>Working on roofs</p> <p>Ladders</p> <p>Trucks</p> <p>Mezzanines</p> <p>Accessing shelving</p>	<p>www.worksafe.vic.gov.au</p>
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