

Farm safety - confined spaces

Any confined space on a farm poses a potentially life-threatening hazard, because the threat may not be apparent until it's too late. Silos, vats, tanks, wells, manure pits and other enclosed or partly enclosed structures can suffocate a person with vapours, toxic gases, dust or low oxygen levels.

Inexperienced or untrained rescuers coming to the aid of someone who has collapsed inside a confined space are usually exposed to the risk too. It is not unusual for numerous members of the same family to be killed in a single confined space accident.

The dangers of confined spaces

Harmful fumes or low oxygen atmospheres are common in many confined spaces on farms. There is also the risk of suffocation inside a silo if stored grain or fertiliser collapses. The safest approach with any confined space is to **avoid going in there**.

In many instances, tasks such as cleaning or maintenance can be achieved using other means that don't require entry into the confined space. If it is necessary for someone to go inside the confined space, consider hiring a contractor who is trained and experienced. If you have no other option but to go inside the confined space yourself, be sure to take all the safety precautions you can, ensure you aren't working alone and that another person knows that you are planning to do this. Talk to WorkSafe Victoria first for valuable and potentially life-saving advice.

Rooms, garages and sheds as confined spaces

Potentially, any room or garage without adequate ventilation can become a closed space (for example, using a generator for power in a room or running a petrol/diesel engine in an enclosed garage).

Silos

A person can be buried and asphyxiated by falling feed, grain or fertiliser inside a silo. Safety suggestions include:

- Use a drier feed so you don't have to unblock the auger discharge, or find ways to mix the feed so that it won't crust.
- Clear blockages from the outside through a hatch.
- Fit vibration systems or turbulence valves.
- Prevent moisture getting in and caking the feed by fitting and maintaining seals.
- If you have to go inside, use a strong safety line and harness and switch off mechanical devices like the auger.
- Never enter a silo if working alone.
- Remember that dusts and fumes can exacerbate asthma, so ensure necessary personal protective equipment (PPE) is also worn.

Vats

- Be sure there are no harmful substances inside.
- Turn off the power to the vat before entry.
- Always have a responsible second person on site who can see inside and is capable of a rescue procedure.

Underground tunnels and wells

Children can be attracted to wells as interesting places to play. Safety suggestions include:

- Cover or fence entrances securely and post warning signs.
- Warn children of the dangers.
- Make wells and underground tunnels strictly out of bounds as play areas.
- Avoid entering tunnels and wells.

Water tanks

Keep out of the tank by finding other ways to empty, repair and clean it. Safety suggestions include:

- Put a lid on the tank so animals and debris can't fall in.
- Fit an external pump or an automated self-cleaning system.
- Install taps in above-ground tanks.
- Try cleaning out the tank from the outside, using high-pressure hoses.
- Don't use petrol-powered pumps inside the tank.
- Hire a professional when required.

Generators/petrol or diesel motors

- Using a generator for power without any ventilation, means that you are at risk from asphyxiation from fumes.
- Generators should always be located outdoors to prevent serious consequences from carbon monoxide.
- When running any diesel or petrol motors, you should always ensure adequate ventilation.

Sewers and manure pits

Gases such as methane and hydrogen sulphide can build up inside manure pits and displace the oxygen. Safety suggestions include:

- Cover pits securely and post warning signs.
- Include natural or mechanical ventilation in the pit's design.
- Try to devise ways to clean the pit from the outside.
- Keep ignition sources well away from the pit, as methane and hydrogen sulphide are flammable.
- If you must go inside the pit, wear self-contained breathing apparatus or an airline respirator or better still, get a trained contractor to undertake the work. Take all necessary precautions.

Rescue attempts can be fatal

Our first impulse when seeing a person in danger is to help them. However, entering a confined space with dangerous fumes or low oxygen levels can overcome and kill the rescuers too. Never attempt a rescue unless you have a proper rescue plan and the right safety equipment, such as breathing apparatus. Otherwise, call on emergency services personnel, who are professionally trained and equipped.

Draw up an emergency plan

An emergency plan for the whole family and farm is vital. Some suggestions include:

- Seek advice from WorkSafe Victoria on how to safely deal with the confined spaces on your farm.
- Ensure easy access to a suitable 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 that has an 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
- National Centre for Farmer Health Tel. (03) 5551 8533
- WorkSafe Victoria Tel. (03) 9641 1444 or 1800 136 089
- Victorian Farm Safety Centre Tel. (03) 5335 3703
- Farmsafe Australia Tel. (02) 6752 8218

Things to remember

- Enclosed or partly enclosed structures on farms such as silos, vats, tanks, pits or poorly ventilated rooms can suffocate a person with fumes, dust or low oxygen levels.
- Without a proper rescue plan and safety equipment, rescuers coming to the aid of someone who has collapsed inside a confined space can become overcome too.
- The safest approach with any confined space is to avoid going in there.
- Organisations such as WorkSafe Victoria can offer valuable advice on improving health and safety on your farm.

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

National Centre for Farmer Health

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