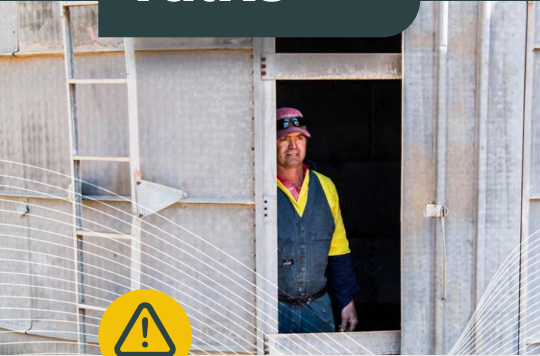


Toolbox Talks



We all need to remember

- If you are unsure of anything or feel that something you have been asked to do is dangerous, DO NOT begin the task. ASK for assistance or more information and we will work together to find a safe way to do the job or solve the problem.
- Ensure you are aware of the location of the nearest First Aid Kit.
- Make sure everyone is fit for work, free from signs of fatigue, drugs or alcohol. If in doubt, ask or talk to your manager.
- This farm is a workplace, but may also be a place of residence for the owner, their managers and employees. Be vigilant for children and bystanders at all times. Refer to *Child Safety on Farms*.
- The safety, health and wellbeing of all who live on, work on and visit this farm is the most important responsibility we all share.

Even if we are busy and under time or financial pressures, safety MUST come first.



emergencyplus

Save the App that could save your life.

EMERGENCY CONTACTS

In case of emergency, CALL 000 or your local emergency service provider, then call your manager or supervisor.

POISONS 13 11 26
Poisons Information Centre

A Practical Guide

Working in Confined Spaces

Working in confined spaces on Australian farms can pose significant risks to farm workers' health and safety. It's essential to understand the hazards associated with confined spaces, and how to reduce the risks to ensure your safety and the safety of those around you. A confined space is determined by the hazards associated with a the specific situation, not just because work is performed in a small space.

A 'confined space' means an enclosed or partially enclosed space that:

- is not designed or intended to be occupied by a person
- is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space; and
- poses or is likely to pose a risk to health and safety from:
 - an atmosphere that does not have a safe oxygen level, or;
 - contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion, or;
 - harmful concentrations of any airborne contaminants, or;
 - engulfment.

Entry into a confined space means a person's head or upper body is in the confined space or within the boundary of the confined space.

Examples of confined spaces on farms can include silos, grain bins, pits, tanks, manure storage areas, and more. These spaces are typically characterised by limited access and egress, inadequate ventilation, and potential exposure to hazardous atmospheres.

The Hazards and Risks

Reduced Access

Confined spaces often have tight quarters, making it challenging to move around or escape quickly in case of an emergency.

Oxygen Deficiency

This occurs when a confined space does not have enough oxygen to support life. It can be caused by displacement of oxygen by other gases like carbon dioxide or nitrogen, or by oxygen being consumed by chemical reactions or bacterial activity. An example of this could be decomposing organic matter inside a water storage tank.

Lack of Ventilation

Insufficient airflow can lead to the accumulation of toxic gases, vapors, or airborne particles. This lack of ventilation prevents the harmful substances from dissipating, increasing the risk of respiratory problems for anyone inside the confined space. Performing tasks that give off toxic fumes, like painting and welding, can be more hazardous when there is poor ventilation.

Presence of Hazardous Substances

Confined spaces may contain various hazardous substances, including chemicals, fumes, or dust, which can be harmful or fatal to humans. These substances could be present due to industrial processes, storage, or other activities conducted in the confined space.

Toxic Gases and Vapors

Confined spaces can contain specific toxic gases and vapors, such as carbon monoxide, hydrogen sulfide, methane, and others. These gases can be odorless and colorless, making them difficult to detect without proper equipment. Exposure to these toxic substances can lead to severe health issues or even death.

Fire and Explosion Hazards

Confined spaces can be flammable, especially if they contain flammable gases or vapors. An ignition source, such as a spark or flame, can cause a fire or explosion.

Engulfment Hazard

Some confined spaces may contain liquids or materials that can engulf a person, leading to drowning or suffocation.

Heat Stress

Working in confined spaces poses the risk of heat stress due to the restricted space and inadequate ventilation, which hinder the body's ability to regulate temperature effectively. Additionally, poor ventilation can trap heat and moisture, making the heat stress situation worse.

Toolbox Talks

A Practical Guide Working in Confined Spaces

Other Hazards

Other hazards that can be present in confined spaces include noise hazards, heat stress or cold stress, drowning hazards, electrical hazards, slips, trips, and falls, ergonomic hazards, and psychological hazards, such as claustrophobia or anxiety.

Possible Harm

Working in confined spaces without proper precautions can lead to severe injuries, illnesses, or even fatalities. The risks and potential harm associated with confined space work include:

Oxygen Deficiency

Oxygen deficiency, also known as hypoxia, is a condition in which the body does not receive enough oxygen. This can happen if the air contains less oxygen than normal, or if the body is unable to absorb oxygen from the air.

Oxygen deficiency can cause a variety of harms to the body, depending on the severity and duration of the deficiency. In severe cases, oxygen deficiency can cause permanent damage to the brain and other organs.

Links and Resources

Safe Work Australia - Confined Spaces
safeworkaustralia.gov.au

Safe Work Australia - Model Code of Practice: Confined Spaces
safeworkaustralia.gov.au

Farm Safety - Confined Spaces
safeworkaustralia.gov.au



Toxic Gases and Vapor

Toxic gases and vapors can cause a wide range of harms to humans, depending on the type of gas or vapor and the level and duration of exposure. Some of the most common harms include respiratory problems, neurological problems, cardiovascular problems, cancer, skin and eye irritation, liver damage, kidney damage, and reproductive problems.

Engulfment Hazards

Some confined spaces contain materials that can collapse and engulf a person, such as sand, grain, or liquids leading to crush injuries, suffocation, asphyxiation, and death.

Heat Stress

Heat stress is a condition that occurs when the body cannot get rid of excess heat. This can happen when the temperature is high, when the humidity is high, or when the body is working hard. Heat stress can lead to a number of health problems, including heat exhaustion, heat cramps, and heat stroke.

Fire or Explosion

In case of a fire or explosion, different types of injuries can occur. Burns can range from minor to severe, potentially causing permanent disfigurement and disability. Breathing in smoke can lead to respiratory issues, poisoning, or even death. Blast injuries might cause internal bleeding, organ damage, or be fatal. Explosions near or within hard solid surfaces become amplified 2 - 9 times due to shock wave reflection. As a result, individuals can suffer 2 - 3 times the degree of injury compared to those in open spaces.

The specific harms that a person may experience from a confined space will depend on the type of hazards that are present and the length of time that the person is exposed to the hazards.



A Practical Guide
Working in Confined Spaces

Reducing the Risk

To help reduce the risks posed by confined spaces:

Avoid Working in Confined Spaces

- Whenever possible, redesign tasks or processes to eliminate the need to enter a confined space. An example of this may be using a robotic vacuum to clean the inside of a water tank while the operator of the vacuum remains outside of the tank.
- Design the work (structurally or mechanically) to eliminate the need to work in a confined space. This may include replacing small manhole covers with larger access hatches that allow tasks to be performed from outside of the confined space.

Use Engineering Solutions, Mechanical Devices or Aids

- **Remotely operated equipment:** Remotely operated equipment can be used to perform tasks in confined spaces without the need for human entry. For example, remotely operated vehicles can be used to clean manure pits or inspect silos.
- **Automated systems:** Automated systems can be used to perform repetitive tasks in confined spaces, such as transferring grain.
- **Remote Monitoring:** Use remote sensors, cameras, and other monitoring devices to assess conditions inside the confined space without requiring physical entry.
- **Mechanical Ventilation Systems:** Install ventilation systems that ensure a constant supply of fresh air into the confined space and remove contaminants. This helps prevent the buildup of hazardous gases or lack of oxygen.
- **Isolation:** Implement physical barriers or locks to isolate confined spaces when they are not in use, preventing unauthorised access and ensuring that people do not inadvertently enter without proper safety measures in place.

- **Purging and Cleaning Systems:** Use automated purging systems to remove hazardous substances from confined spaces before entry. Automated cleaning systems can reduce the need for manual cleaning inside confined spaces, minimising exposure to contaminants.
- **Continuous Monitoring:** Install gas detectors, oxygen meters, and other monitoring devices inside the confined space. These devices can continuously monitor the atmosphere and alert workers if hazardous conditions develop, allowing them to evacuate immediately.
- **Non-Entry Retrieval Systems:** Implement retrieval devices and tripods that allow workers to be quickly and safely removed from the confined space in case of an emergency without other people needing to enter the space.

Use Administrative Controls

- **Confined Space Entry Procedures:** If tasks require entry into confined spaces, detailed entry procedures outlining the steps to be taken before, during, and after entry should exist. Know what these procedures are for your work-place and the confined space involved and follow them rigorously.
- **Permit System:** Follow the correct procedure to obtain a confined space entry permit and do not enter the confined space without one. The permit should detail the work to be done, potential hazards, safety measures, and rescue procedures.
- **Pre-Entry Testing:** Conduct thorough atmospheric testing of the confined space before entry. Test for oxygen levels, flammable gases, and toxic substances. Document the results in the entry permit.
- **Training:** Request training on how to safely work in or around confined spaces. Training should cover hazards, emergency procedures, proper use of personal protective equipment (PPE), and the importance of following protocols.
- **Buddy System:** Use a buddy system. Work in pairs or groups when entering confined spaces. This ensures that there is always someone outside the space who can provide assistance or alert others in case of an emergency.



- **Communication:** Follow communication procedures. This can include radios, signals, or other communication devices to maintain constant contact.
- **Time Limits:** Limit the time spent inside of any confined spaces. Prolonged exposure increases the risk of exposure to hazardous conditions.
- **Rescue Plan:** Know your workplace's procedures and equipment for rescuing people from confined spaces. Make sure that the people you are working with are trained in communication and rescue procedures.
- **Equipment Inspection:** Regularly inspect and maintain all safety equipment used during confined space work, including gas detectors, harnesses, lifelines, and rescue devices.

Use Personal Protective Equipment (PPE)

The PPE required for work in a confined space will depend on the situation. Respiratory protection guards against harmful gases, while gas detectors alert to hazardous concentrations. Fall protection equipment, including harnesses, prevent falls and aids rescues. Eye and face protection shields from splashes of chemicals or other hazardous materials. Hearing protection (earplugs or earmuffs) guards against loud equipment noise. Head protection (hard hats) safeguards from falling objects. Suitable gloves, like chemical-resistant ones, shield hands from dangers.

Toolbox Talks

Facilitator Guide

INSTRUCTIONS

The information sheet is background information ONLY. Be sure to customise your talk to your operation and facilities.

How to deliver an effective Toolbox Talk

- Know your Topic. If you don't understand the material it will be hard to explain and make it relevant.
- Print copies of the Toolbox Talk Info sheet for yourself and each of the participants.
- Hold the talk in a location relevant to the topic being discussed.
- Explain why the Toolbox Talk is being held.
- Stay on topic and keep it simple.
- Encourage conversation and participation.
- Be sure to give real life examples whenever possible.
- Be open to questions.
- Read through the provided cases studies.
- After each study ask attendees what could have been done to prevent this situation.
- Conclude with a brief review of the main points or a summary based on the discussion.
- Record the details of the Toolbox Talk including the location, date and names of attendees.

Note: This Facilitator Guide is intended to provide a basic structure for conducting a Toolbox Talk. Customise it as needed to suit your specific audience and objectives. Always prioritise safety and ensure that participants have a clear understanding of the information presented.

A Practical Guide

Working in Confined Spaces

Introduction

- Welcome and introduction to the session.
- Briefly outline the importance of working safely in confined spaces and the potential risks involved.

Icebreaker

Consider starting with a brief question or scenario related to confined spaces to

engage participants. For example, "What confined spaces do we have in this workplace?"

Distribution of Resources

Handout printed Toolbox Talk Information Sheets and any other resources related to working in confined spaces.

Key Points

Types of Hazards and Risks

- Define what constitutes a confined space.
- Explain the hazards associated with confined spaces, including lack of oxygen, hazardous gases, engulfment, and limited entry/exit points.
- Emphasise the importance of proper training, awareness, and vigilance when working in confined spaces.

Safe Practices

- Present safe practices, including elimination, engineering controls, substitution, administrative controls, and personal protective equipment (PPE).
- Discuss procedures for confined space entry.
- Explain the confined space entry permit system and its components.
- Outline the roles and responsibilities of team members, including entrants, attendants, and supervisors.
- Describe the procedures for testing the atmosphere, communication, and emergency response.

Demonstration and Practical Tips

- Conduct a live demonstration of any tools and equipment used in confined spaces.
- Provide practical tips and techniques for maintaining safety while performing tasks in confined spaces.

Interactive Discussion and Case Studies

Encourage participants to share their experiences, challenges, or questions related to confined space work.

Use visual aids or diagrams if available to illustrate key points.

Use the Case Studies on the next page to prompt conversation. Read the case studies out loud and ask participants for their thoughts.



Q&A Session

Allow participants to ask questions and seek clarification on any topics covered.

Conclusion

Summarise the main takeaways from the talk.

Reiterate the importance of everyone's commitment to safety on the farm.

Closing Remarks

Thank participants for their time and attention.

Remind them to apply the knowledge gained from this toolbox talk in their daily work.

Feedback

Ask for feedback on the Toolbox Talk content and delivery to improve future sessions.

Toolbox Talks
Facilitator Guide

CASE STUDIES



Risk Management Tools

DOWNLOAD ONLINE MATRIX

Use this simple and effective tool to assess and manage the risk of your farming activities prior to commencing.

All team members can join in and contribute, developing different ways to manage risks on your farm. Doing a risk assessment helps determine hazards and develop appropriate control measures to lessen risks.

farmsafe.org.au

P. +61 2 6269 5622 | E. info@farmsafe.org.au

Disclaimer: This *Toolbox Talk* is intended as a *general* guide only and is designed to be used to increase risk awareness and safe work practices - it is not legal advice and does not take the place of proper individualised on-farm workplace inductions, work, health and safety training, or any other tailored steps which may be necessary to protect health and safety at specific worksites.

CASE STUDY 1 The Farm Water Tank Incident

Scenario

On a farm, a worker entered an empty water tank to clean out organic material that had built up on the bottom of the tank. The worker didn't realise that the decaying organic matter was releasing a lethal mix of gases, including hydrogen sulfide and methane. As the worker descended into the confined space, the gases overwhelmed them, causing them to lose consciousness. Fellow farmworkers, unaware of the hazardous atmosphere, attempted a rescue without proper equipment, putting themselves at risk.

QUESTION	ANSWERS MAY INCLUDE
What could have been done to prevent this scenario?	<ul style="list-style-type: none"> • Training and Awareness: Understanding the potential hazards of confined spaces and being able to recognise the signs of hazardous atmospheres may have prevented this situation. • Proper Ventilation: Using a ventilation system to remove gases and ensure a constant supply of fresh air in confined spaces. • Gas Monitoring or Air Sampling: Sampling the air prior to entry may have indicated that there was a potentially dangerous atmosphere inside the tank. A wearable monitor may have alerted the worker to any gases that were released after the organic matter was disturbed by cleaning. • Respiratory Protection: Appropriate respiratory protection, such as gas masks or self-contained breathing apparatus (SCBA), could have been worn. • Emergency Response Plan: An emergency response plan should have been in place which would have alerted workers attempting a rescue that there may have been potentially hazardous atmospheres inside the tank. • Warning Signage: Signs indicating the potential hazards and the requirement for authorisation before entry may have alerted the workers that they were about to enter a confined space.

CASE STUDY 2 The Silo Maintenance Challenge

Scenario

At a farm silo, a worker entered the confined space to repair an auger. The air was tested prior to entry and deemed to be safe. The worker used a petrol-powered leaf blower to clear the work area and then engaged in welding activities. Following completion of the work, the worker reported feeling very unwell including having a headache, feeling dizzy, nausea, and shortness of breath. Upon receiving medical attention it was determined that, due to poor ventilation inside the confined space, the worker was exposed to high levels of carbon monoxide.

QUESTION	ANSWERS MAY INCLUDE
What could have been done to prevent this scenario?	<ul style="list-style-type: none"> • Ensure Proper Ventilation: Always confirm adequate ventilation inside confined spaces before entering. Use mechanical fans if needed to circulate fresh air and remove harmful gases or to extract harmful byproducts from tasks. • Continuous Gas Monitoring: Regularly monitor the air quality inside confined spaces, especially during activities like welding. Use gas detectors to check for specific hazardous gases, such as carbon monoxide. • Wear Respiratory Protection: When working in environments where carbon monoxide exposure is possible, wear respiratory masks with carbon monoxide filters to prevent inhalation of harmful gases. • Awareness of Hazards and Symptoms: Stay aware of confined space risks and report any symptoms of gas exposure immediately, even if initial air tests seem fine. • Clear Procedures: Always adhere to clear and detailed confined space work procedures, including proper air testing, tool usage, and wearing safety equipment. Regularly review and reinforce these procedures.

On-farm Toolbox Talk Sign-off Sheet

Please list and/or attach all documents that have been provided including checklists, policies, safe operating procedures, etc.

INSTRUCTIONS

This sign-off template is available for you to use as part of your training packages. You will need to attach all evidence of all information given to the person that you have spoken with regarding this specific Toolbox Talk. This may include checklists, policies, safe operating procedures or notes about the conversations had, questions asked and other information provided.

Holding Toolbox Talks or safety meetings are not just about checking a box - they need to be tailored to your farming environment, meet the legislative requirements, and designed to support your employee, contractor, family member or visitor throughout the time that they spend living or working on your property. Inductions are only the first step in your WHS journey and it is important that you continue to create a safety culture on your farm by continuing to engage with your employees on any matters that may affect their health, safety and wellbeing.

The employee/contractor/visitor/family member that you have had this conversation with should acknowledge that they have received, discussed and understood all the relevant information that has been presented to them and attached and sign in the relevant space provided. A good practice is to ensure that the employee initials or signs each relevant piece of information that is attached and retains a copy of each for their own information. Records of WHS conversations should be kept alongside records of employment or in your work, health and safety management system and be updated as needed or as required by law.

On-farm Toolbox Talk Participants

EMPLOYER – DETAILS

I confirm that I have provided a relevant safety meeting to our farming business and that the employee has received, discussed and understood the listed and attached information.

Given Name(s)
Surname
Property Name
Date
Signature

1. EMPLOYEE / CONTRACTOR / VISITOR / FAMILY MEMBER – DETAILS

I confirm that I have received, discussed and understood all information that has been listed and attached to this document.

Given Name(s)
Surname
Property Name
Date
Signature



Toolbox Talks Facilitator Guide

A Practical Guide Working in Confined Spaces

On-farm Toolbox Talk Sign-off Sheet

CONTINUED



Australian Government Department of Agriculture, Fisheries and Forestry

This project is supported by the Department of Agriculture, Fisheries and Forestry (DAFF), through funding from the Australian Government's National Farm Safety Education Fund.

2. EMPLOYEE / CONTRACTOR / VISITOR / FAMILY MEMBER – DETAILS

I confirm that I have received, discussed and understood all information that has been listed and attached to this document.

Given Name(s)
Surname
Property Name
Date
Signature

3. EMPLOYEE / CONTRACTOR / VISITOR / FAMILY MEMBER – DETAILS

I confirm that I have received, discussed and understood all information that has been listed and attached to this document.

Given Name(s)
Surname
Property Name
Date
Signature

4. EMPLOYEE / CONTRACTOR / VISITOR / FAMILY MEMBER – DETAILS

I confirm that I have received, discussed and understood all information that has been listed and attached to this document.

Given Name(s)
Surname
Property Name
Date
Signature

5. EMPLOYEE / CONTRACTOR / VISITOR / FAMILY MEMBER – DETAILS

I confirm that I have received, discussed and understood all information that has been listed and attached to this document.

Given Name(s)
Surname
Property Name
Date
Signature