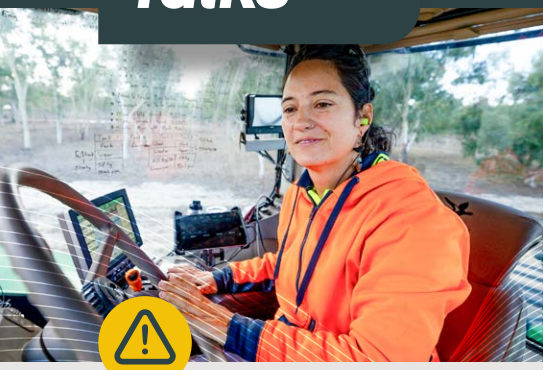
Farmsafe AUSTRALIA

Toolbox Talks



A Practical Guide

Noise on Farms

Hearing loss is one of the most common occupational health issues, affecting millions of workers worldwide. Farm workers face one of the highest risks of hearing loss primarily due to the multitude of sources emitting noise on the farm - from tractors and combines to grinders, choppers, conveyors, grain dryers, and chainsaws, among others. Pro-longed exposure to these noise sources can result in permanent hearing impairment if adequate noise control measures are not implemented.

Hearing loss, whether temporary or permanent, significantly affects an individual's quality of life. It can lead to communication difficulties, social isolation, and reduced job performance. Long-term hearing loss can also cause psychological stress and anxiety, affecting mental health.

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.

The Hazards and Risks

Noise is commonly defined as an unwanted or unpleasant sound that disrupts the normal acoustic environment. It is subjective and varies from person to person, as what one person considers noise might not be bothersome to another. Noise can be any sound that interferes with normal activities, causes discomfort, or disturbs the peace and quiet of a particular environment.

The loudness of sound levels (noise) is measured in units of 'decibels', abbreviated as dB or dBA.

Typical noise levels from farming machinery and operations

Source: Worksafe Queensland

Levels db(A) Approx	**Farming machinery or operation**	**Maximum unprotected exposure time***
80	Tractor idling at 1m	No limit
85	Working in a tractor with enclosed cab	8 hours
90	Shearing shed	2 hrs 30 min
90	Chainsaw idling at 1m	2 hrs 30 min
95	Angle grinder	48 min
95	Grain auger	48 min
95	Header	48 min
100	Tractor operating under load without a cab	15 min
100	Orchard sprayer	15 min
105	Pig shed at feeding time	4 ½ min
120	Chainsaw cutting	8 seconds
140	Aircraft at 15m	No safe exposure
140dB(C)	Shotguns/rifles and other firearms far exceed the 140dB limit	No safe limit: *Instantaneous damage*

The risk of noise-related injury increases depending on how loud the noise is and how long the exposure lasts.

Another significant hazard posed by noise is that environmental noise may prevent effective communication, leading to misunderstandings, errors, and injury due to miscommunication. Environmental noise may also prevent people from hearing audible alarms and warning signals.

* Maximum unprotected exposure time before permanent damage begins to occur.

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

AS AT NOVEMBER 2023

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What is the Harm?

Noise that is...

Between 70 and 90 decibels
This level of noise can be distracting and may make it hard to have conversations. Noise above 70 decibels reduces the ability to hear verbal warnings or instructions.

Between 80 and 90 decibels
Prolonged exposures to sound levels between 80 and 90 decibels can result in hearing loss. Continual noise exposure can lead to various other physical effects such as fatigue, tension, increased blood pressure, and stomach disturbances.

Between 90 and 115 decibels
Exposure to noise levels between 90 and 115 decibels will cause hearing damage over time. The time required to inflict permanent damage reduces as the decibel level increases. Noise does not have to be painful to be doing damage.

Over 115 decibels
Exposure to sudden, extremely loud noise can cause psychological shock, discomfort, pain, and instant, irreversible hearing damage.

Links and Resources

SafeWork Australia
Managing Noise And Preventing Hearing Loss at Work Code of Practice
safeworkaustralia.gov.au*/sites/default/files/2020-07/model_code_of_practice_managing_noise_and_preventing_hearing_loss_at_work.pdf*

Reducing the Risk

Avoid Amplification
Equipment used in rooms or spaces where surrounding objects can reflect the noise back towards the source have a higher level of risk for noise injuries. If possible, operate loud equipment outside or increase the level of hearing protection used when amplification may be an issue.

Rotate Tasks
Reduce exposures by taking breaks or swapping tasks with other workers.

Identify Potentially Damaging Noise
If you have to shout to be heard over the noise, wear hearing protection. Check the decibel level for any item of plant or machinery being used. This information should be available in the operations manual.

Any noise leaving you feeling nervous, fatigued, or causing a ringing/buzzing sound in your ears is too loud for extended exposure without protection.

Isolate Noisy Machinery
Enclose loud machinery in soundproof barriers or rooms to contain noise. In workshop situations separate workers from machinery by placing noisy machinery outside of work areas.

Implement Silencers and Dampeners
Install mufflers, silencers, or dampeners on noisy equipment to reduce their sound emissions.

Perform Regular Maintenance
Ensure that all machinery is well-maintained. Lubricate moving parts to minimise friction-related noise.

Wear Personal Protective Equipment (PPE)
In order to be effective, PPE must fit the wearer comfortably, and correctly and be of the correct rating. If you are unsure of the rating level needed for tasks that you perform, seek the guidance of a professional.

Types of Hearing-Related PPE

Earplugs: These fit inside the ear canal and are useful for lower noise levels or when wearing a helmet. They are portable, cost-effective and convenient.

Earmuffs: These cover the entire ear and provide a higher level of protection. Earmuffs are particularly useful in extremely noisy environments.

Combination Devices: Some workplaces may require a combination of earplugs and earmuffs for maximum protection, especially in very high noise environments.

Electronic Hearing Protectors: These devices allow for communication while protecting against harmful noise levels. They use built-in microphones and speakers to amplify safe sounds while blocking harmful ones.

Hearing Related PPE Ratings:

There are 5 different classes of hearing protection. To determine which class of hearing protection is required for a task it is necessary to consider the decibels of the task and the exposure time. The measurement of noise over an extended period of time, usually 8 hours, is referred to as dB(A) [LAeq,8h].

There are online calculators that can help calculate LAeq,8h dB(A) if the decibel levels and exposure times of daily tasks are known but professional advice is recommended.

Recommended class of hearing protector for specific noise levels (dB(A))

Measured Exposure LAeq,8h dB(A)	Class
Less than 90	1
90 to less than 95	2
95 to less than 100	3
100 to less than 105	4
105 to less than 110	5

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Toolbox Talks Facilitator Guide

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Noise on Farms

Introduction

- Welcome everyone.
- Explain why the Toolbox Talk is being held.
- Emphasise the importance of being aware of noise hazards.

Icebreaker Consider starting with a brief question or scenario related to noise issues in the workplace to engage participants. For example, "What is the noisiest task that you currently perform or are exposed to?"

Distribution of Resources
Handout printed Toolbox Talk Information Sheets and any other resources.

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.*

Key Points

Know Your Limits

- Talk through the list of provided noise levels for common farm machines and equipment.
- Discuss sources of potentially hazardous noise.
- Discuss individual perceptions of noise.

Identify Potentially Hazardous Sources

Ask the following questions and identify the source of noise involved:

- What tasks are performed where a raised voice is needed to communicate with someone about one metre away?
- What tasks are performed where noise levels feel uncomfortable or prevent the clear hearing of instructions or warning signals?
- Has any task caused a person to experience ringing in the ears or a noise sounding different in each ear?
- Is anyone in the team displaying signs of reduced hearing?

Brainstorm

For each task or source of noise identified in the previous section discuss ways to:

- Eliminate this noise.
- Reduce the volume of the noise.
- Reduce the length of exposure to the noise.
- Identify suitable PPE to be worn while exposed to this noise.

Discuss PPE

- Check available ear protection for a rating number.
- Ensure everyone knows how to find the rating number.
- Ensure everyone understands what the rating number refers to.

Interactive Discussion and Case Studies

Encourage participants to share their experiences, challenges, or questions related to noise on farms.

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.

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Toolbox Talks Facilitator Guide

CASE STUDIES

CASE STUDY 1

Low but Consistent Noise

Scenario

At Green Acres Farm, the workers are responsible for operating a series of smaller machines throughout the day, such as lawnmowers, leaf blowers, and small tractors. These machines produce a consistent low-level noise, averaging around 90 dB(A). The workers are required to use hearing protection, but some find it uncomfortable and remove it.

QUESTION	ANSWER
Could workers removing their hearing protection be exposing themselves to potential hearing loss?	Yes, at 90 dBA permanent hearing damage can start to occur after 2 hrs and 30 min of exposure.

CASE STUDY 2

Sudden but Brief Noise

Scenario

At Green Acres Farm, two workers are finishing off a section of fence. A total of 10 steel fence posts need to be erected using a steel fence post driver. The decibels of the post driver striking the post is 105 dBA. Each post requires between 3 and 5 strikes with the driver. Driving all 10 posts should take roughly 15 minutes.

QUESTION	ANSWER
Bobby will be standing directly beside the post driver. Does Bobby require hearing protection?	Yes, at 105 dbA it is likely for Bobby to experience hearing damage if hearing protection is not worn.
Jess is driving the tractor with the post driver as an attachment. Should Jess be wearing hearing protection?	Yes, even though Jess is further away from the source of the noise than Bobby is hearing protection should still be worn. Both workers are also being exposed to the noise of a tractor engine under load. This needs to be taken into consideration as well as the noise from the post driver.
What other things, related to noise, should Jess and Bobby consider while working together on this task?	Use this as an opportunity to discuss communication techniques in loud environments and the possibility of task rotation.

CASE STUDY 3

Amplification Issues

Scenario

At Green Acres Farm, the workshop houses an air compressor underneath the workbench. The workshop is a covered tin shed, 4 meters wide by 6 meters long, that is enclosed on three sides. The operating manual for the air compressor states that the average operational noise level is 85 dBA.

QUESTION	ANSWER
Does the fact that the compressor is inside of an enclosed shed increase or decrease the total amount of noise that workers inside the shed are exposed to?	Any surfaces that can reflect noise back towards the source result in the amplification of the total noise. In this instance, the total decibels experienced by workers inside the workshop shed would be higher than 85dBA. Use this case study as an opportunity to discuss: • Planning your work to limit your time near noise. • Turning off machinery when it isn't needed. • Positioning noisy equipment and machinery away from workspaces.

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***

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Toolbox Talks *Facilitator Guide*

A Practical Guide
Noise on Farms

On-farm Toolbox Talk
Sign-off Sheet

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.

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

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	

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Sign-off Sheet

CONTINUED

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	

Australian Government
Department of Agriculture, Fisheries and Forestry

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