

AGRICULTURAL SAFETY TOPICS

PROTECTING AGAINST NOISE

A new noise regulation, Regulation 381/15: Noise, under the Occupational Health and Safety Act (OHSA), replaces the noise protection requirements set out in the regulation for Industrial Establishments, Mines and Mining Plants, and Oil and Gas-Offshore. Effective July 1, 2016, the noise regulation extends the noise protection requirements to all workplaces under OHSA to help protect Ontario's workers from noise-induced hearing loss, a leading cause of occupational disease in the province.

Objective:

To know the effect of noise on hearing, and to practice proper protection against hazardous noise levels.

Note: It is good practice to review the hierarchy of controls from top to bottom. The most effective controls are the ones that eliminate the noise all together or by making a substitution with a quieter piece of equipment. Engineering controls could include with enclosing the noise source or using quieter processes. There are also awareness controls such as education and training; and administrative controls like rotation of workers from high noise to low noise levels to reduce exposure. As a last resort and possibly implement in combination of other controls is hearing protective devices such as ear plugs or earmuffs.

Background:

The most common reason employees resist wearing hearing protection is because they just don't think they need it. This is a frightening fact because hearing loss is gradual, and by the time it is realized, the ability to hear has worsened. It may be too late. Another reason individuals give for not wearing hearing protection, is that they think the protection will be uncomfortable.

The following are several types of hearing protection devices which give good protection, are comfortable and easy to use:



Rolldown Foam Ear Plugs – Plugs are spongy, soft compressed or shaped prior to insertion; expandable to provide a snug fit. These are disposable plugs. Note, most brands can usually be reused a few times as long as they are clean.

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Premolded Plugs – Plugs made of soft flexible material preformed to fit the ear. Must be fitted (sized) for each ear. These plugs are designed for reuse and must be washed after each use. They are good to use in cases when hearing protection is used on a regular basis.



Earmuffs – Adjustable headband with soft cups and cushions that seal around the ear. Plugs may be worn under muffs for additional protection. Muffs may be more comfortable to wear over a longer period than plugs, but should not be worn with eyeglasses or any other obstruction that will reduce their effectiveness.

Note: It is important to follow the manufacturer’s instructions on proper selection, use, care and limitations of the hearing protection device.

How noise can hurt you:

- Too much exposure to loud noise can result in stress, from constantly straining to listen and be heard.
- Noise can cause you to miss important safety instructions.
- Prolonged exposure to loud noise can result in permanent hearing loss.
- Even if you are exposed to loud noise for a short time, you may lose your hearing.

How to tell if noise is hurting you:

- You may have a problem if you hear ringing or other noises in your ears, have a hard time hearing people when they talk to you, or are unable to hear high pitched or soft sounds.
- If you experience any of these problems, tell your supervisor. You may need to have your hearing tested.

Noise is defined as sounds people prefer not to hear. Noise is especially dangerous in the workplace because it interferes with communication and disrupts concentration. Sound is measured in decibels. Noise that is 85 decibels or greater for more than eight hours a day, can affect your hearing.

Sample noise levels:

Quiet office, library	40 Decibels	Diesel Trucks; Power Lawn Mowers	95 Decibels
Normal Conversation	50-60 Decibels	Power Tools	100 Decibels
Chicken Coop; Conventional Voices	60-70 Decibels	Leaf Blower	110 Decibels
Tractor Idling; Conveyors	85-95 Decibels		

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Protective covering or insertions in the ears reduces noise levels to the inner ear. It is important to properly select and use hearing protection when noise exposure cannot be controlled adequately by environmental changes, such as working farther away from the noise. Hearing protection should be worn when noise levels exceed 85 decibels.

Good protection against noise depends on the rating of the hearing protection used, seal between the surface of the skin and the surface of the hearing protector. Caution should be taken because protectors can become loose and create leaks. Having a leak reduces the protection from harmful noise levels. Talking and even chewing can create a leak in the hearing protection. Earplugs should be made of a soft material, and be properly designed, well-fitted, and clean.

Not all materials can block the same amount of sound. The manufacturer indicates how much noise (in decibels) the hearing protection device blocks. This is called the noise reduction rating (NRR). For general use, look for a NRR of 25 or greater. In extremely noisy conditions, above 105 decibels, a combination of both ear plugs and earmuffs may be required to adequately protect the worker.

Review The Following Points:

- Sound that exceeds 85 decibels can cause hearing loss.
- Good protection against noise depends on the seal between the surface of the skin and the surface of the ear protector.
- It is important that hearing protection is worn properly.
- If head noise or ringing noises occur in the ears at the end of the workday, the worker might be exposed to too much noise, and should take precautionary measures.

How can WSPS help?

- Noise level surveys
- Qualitative assessments
- Area and personal noise exposure assessments
- Assistance with meeting legislative requirements
- Workplace program audits and training

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Additional Resources

- Regulation 381/15: Noise
www.ontario.ca/laws/regulation/r15381?_ga=1.22424200.2088070498.1399039160
- Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)
www.omafra.gov.on.ca/english/
- The Agricultural Health and Safety Network
www.aghealth.usask.ca/

Reference: CSA Standard Z94.2-14: Hearing Protection Devices – Performance, Selection, Care and Use.

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