Safety Up – On Hearing

What’s that you said? Studies show that many farm workers have already experienced some noise-induced hearing loss by age 30, and half of all older farmers suffer from significant hearing loss. No wonder. There are: tractors, chain saws, squealing pigs, motors, power tools, ventilation fans, air compressors, choppers, vacuum pumps, bleating, mooing, screeching, and more. As a farm worker with a whole career in front of you, now is the time to protect yourself against hearing loss. Know the job. Know the hazard. Know the drill.

Listen up!

Don’t get down to work until you know the job. Proper training is the key to safety on the farm. When you understand the environment you’ll be working in ahead of time, you can prepare for it. Protecting your hearing means recognizing when you’re entering a noisy work environment ahead of time, avoiding loud noise when you can, and wearing personal protective equipment when it’s unavoidable.

Hearing loss can be caused by a single explosive sound like a gunshot, or it can be the result of continuous exposure to noise. Permanent hearing loss occurs when the nerves of the inner ear are damaged. It often goes undetected because it is gradual and painless. The first thing you lose is the ability to hear high-pitched sounds. Then it becomes impossible to tell musical tones apart. Eventually, the ability to hear normal conversations is impaired. Don’t wait. Protect your hearing now. Know the job.

Hearing hazards

Next to our eyes, our ears are our most important sensory device. Without hearing, we lose one of our most important warning devices. Know the hazard. To prevent hearing loss, you have to learn to recognize hearing hazards ahead of time.

Hearing hazards are measured based on how loud the noise is and how long you are exposed to it. The frequency, or pitch, may also be a factor. High-pitched sounds (squealing pigs) are more likely to cause damage than low-pitched sounds (ventilation fans). Here are a few examples of the maximum length of time you can experience noise before damage to hearing may occur:

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Noise Level</th>
<th>Maximum Exposure Time</th>
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</thead>
<tbody>
<tr>
<td>Lawnmowers</td>
<td>90 decibels</td>
<td>8 hours</td>
</tr>
<tr>
<td>Tractors</td>
<td>95-100 decibels</td>
<td>2-4 hours</td>
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<tr>
<td>Power tools</td>
<td>105 decibels</td>
<td>1 hour</td>
</tr>
<tr>
<td>Chainsaws</td>
<td>110-115 decibels</td>
<td>15-30 minutes</td>
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<tr>
<td>Firearms</td>
<td>Above 120 decibels</td>
<td>Immediately</td>
</tr>
</tbody>
</table>
You’ll perform many jobs in a day on the farm. Don’t forget to slow down and consciously think about the hazards before you start each new task. Pay attention to what you hear to determine if you need to take action. It’s too loud if:

- It hurts your ears
- You have to raise your voice to be heard by someone three feet away
- Speech and other sounds seem muffled after exposure
- You have difficulty hearing for several hours afterward
- Your ears ring after prolonged exposure

**Sound advice**

Once you’ve recognized hearing hazards, you have to take action to prevent damage. **Know the drill.** Limiting exposure time is one important strategy. Using hearing protection equipment is another. Earmuffs and earplugs both reduce the level of noise entering the ear. You can choose: disposable earplugs, corded reusable earplugs, a hearing protective band or earmuffs. They may not be the most appealing fashion accessory you’ll ever own, but then neither is a hearing aid. Here are some more tips to help prevent hearing loss:

- Move away from the noise source.
- Reduce noise by: repairing loud mufflers, tightening loose chains and bolts, enclosing vacuum pumps or isolating air compressors.
- Choose a comfortable hearing protection device when you must work in a noisy environment.
- Remember that your hearing protection has to fit well to function well.
- Look for hearing protection with a Noise Reduction Rating (NRR) of 24 or higher (the higher the NRR, the better the protection).
- Cotton balls or music headsets are not an effective substitute for hearing protection devices.

**Decibels for dummies**

Chances are good you’ve put your hearing through some challenging experiences: concert halls, cranked headphones, blaring stereos, computer games. Surprisingly, an irritated animal can easily match any of those deafening “decibel” levels.

Decibels are the measure of the loudness or strength of sound vibrations. The scale you’re likely to hear goes from 0 to about 130. Sound levels below 85 decibels are considered safe. Continuous sounds above that are hazardous. The louder the noise, the less time it takes to begin damaging your hearing.

![Decibel Chart]

**Did you know?** A squealing pig can hit 130 decibels – louder than thousands of cheering fans and screaming guitars at a hard rock concert
The last word

Are you always turning up the volume on the TV or radio? Do you have difficulty understanding soft voices or hearing conversation in a crowded room? These are just some possible signs that you may already suffer from hearing loss. Permanent hearing loss makes life a little less harmonious. It also increases the risk of future health issues and safety problems related to the inability to hear well – you might miss warning signals designed to prevent an incident, for example. Take responsibility for your own hearing safety, starting now. Know the job. Know the hazard. Know the drill.

References

Noise Danger on the Farm, Farm Safety 4 Just Kids, Earlham, IA,  http://www.fs4jk.org

http://www.farmsafety.ca/factsheets/tips-e/noise.pdf

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Farm Safety Association, Ontario.