

## Protecting Farmers' Hearing



Farmers often experience loud noises on a daily basis and often for long periods of time. Farmers experience more hearing loss than most other occupations. Once nerves are damaged, hearing does not come back.

What noise levels require hearing protection devices? The general rule of thumb is, if you have to speak loudly to someone three feet away, you are working around noises that require hearing protection. The danger zone for hearing damage starts at about 85 decibels (dB). With each 3 decibel increase, the "safe time" is cut in half.

Decibel level	Typical Farm Sounds
60	▶ Normal conversation
<b>THE DANGER ZONE</b>	
80	<ul style="list-style-type: none"> <li>▶ Tractor idling, barn cleaner, conveyers, elevators.</li> <li>▶ These noises can damage hearing if exposure is for more than eight hours continuously.</li> </ul>
90	<ul style="list-style-type: none"> <li>▶ Tractor at 50% load, lawn mower, compressor, combine.</li> <li>▶ As loudness increases, the "safe" exposure time decreases; damage can occur in less than eight hours.</li> </ul>
100	<ul style="list-style-type: none"> <li>▶ Tractor at 80% load, pig squeal, power tools, chain saw.</li> <li>▶ Even two hours of exposure can be dangerous.</li> </ul>
120	<ul style="list-style-type: none"> <li>▶ Tractor at full load, bad muffler, old chain saw.</li> <li>▶ The danger is immediate.</li> </ul>
140	<ul style="list-style-type: none"> <li>▶ Gunshot, back-fire, dynamite blast.</li> <li>▶ Any length of exposure time is dangerous. At this level, the noise may actually cause pain in the ear.</li> </ul>

**WHEN SHOULD YOU BE CONCERNED ABOUT YOUR HEARING?**

- ▶ Turning up the volume on the TV or radio
- ▶ Difficulty understanding consonants in words and high notes of music
- ▶ Difficulty hearing a person's voice when they are standing only a few feet away
- ▶ Sound may be muffled after noise has stopped
- ▶ Ringing in the ears

## Personal Protective Equipment (PPE)



Hearing personal protective equipment (PPE) is rated according to its noise reduction rating. Use ear plugs or muffs when around any noise above 85 dB. Music in headphones can also cause damage if turned up too loud. When using ear plugs, make sure to follow directions on how to put them in correctly.

Hearing tests are available at your doctor's office, rural health clinics, and often at farm events. By identifying a problem early, further hearing loss may be minimized.

All farm family members are at risk of hearing loss. Noise induced hearing loss is preventable but irreversible if damaged. Provide PPE even for children. Hearing loss can be cumulative to reduce noise exposure early in life.

	REDUCE NOISE LEVELS	ISOLATE NOISE	ADMINISTRATIVE CONTROL
Prevention strategies	Replace and Lubricate equipment	Choose tractors and other machinery with cabs	Rotate jobs so exposure time to loud noises is reduced
	Operate machinery at lower speeds	Make sure doors and windows fit tightly and are closed	Take breaks from noisy operations
	Reduce vibration	Choose farm implements with sound dampening and absorbing features	Limit the amount of time near noise
	Turn down tractor radio		
	Install or repair mufflers		

Find a noise meter at: <http://www.cdc.gov/niosh/topics/noise/noisemeter.html>