

An Action Plan for Noise on the farm

Everyone working in the farming community, male and female, full or part time, should take steps to protect their hearing. A three-level approach to hearing health should be a part of life on the farm.

First — Educate

Information including the effect of noise on hearing, importance and effectiveness of hearing protection, and the early warning signs of noise-induced hearing loss (NIHL) should be provided for farm workers at risk.

Second — Test and Protect

An annual hearing test for farm workers can help stop NIHL early in its progression. Use of effective hearing protection in high noise areas can totally prevent NIHL.

Third — Rehabilitate and Accommodate

Even after some hearing has been lost, life can be made better. Audiologists can work with you to help alleviate the hearing handicap and focus on rehabilitation and coping with hearing loss in everyday life. Assessment for fitting and dispensing systems like hearing aids or assistive listening devices, and communication training will help farmers with existing hearing loss.

Earplugs and earmuffs worn properly reduce the risk of hearing loss

Peace and Not So Quiet on the Farm

The U.S. Safety Council ranks farming as the most hazardous occupation in this country, and the consequences of farm accidents are almost immediately obvious. However, hearing loss due to noise on the farm has not been considered an important issue by many. After a long workday on the tractor or combine, without realizing that these may be early indications of hearing loss due to noise, farmers may notice:

- ringing in the ears;
- a sensation of “fullness” in the ears;
- some reduction in the ability to understand conversation.

This guide provides information about noise levels on the farm and actions that agricultural workers can take to protect their hearing.

Permission is granted for individuals to print and copy this document. However, the document cannot be used commercially without permission from the NHCA office.

For more information, contact:



Med Compass
7841 Wayzata Boulevard #214
Minneapolis, MN 55426
800-205-8729 (V), 952-542-0095 (F)
sales@medcompass.net (E-mail)
www.medcompass.net

Printed on recycled paper

NHCA thanks James Lankford of Northern Illinois University and Barbara Garrett of St. Luke's Hospital, Cedar Rapids, Iowa, for their contributions to this project.

12.96 version

A practical guide to:

Noise and Hearing in the Farming Community



National Hearing Conservation Association

The mission of the National Hearing Conservation Association is to prevent hearing loss due to noise and other environmental factors in all sectors of society.

Some Important Facts About Hearing Loss in the Farm Community

- Hearing loss is always greater among farmers than comparative groups that have had little or no noise exposure.
- The beginning of noise-induced hearing loss has been noted among children and adolescents (ages 6 to 19) living in the farm environment.
- A difference in hearing ability between ears has been noted among farmers, with the left ear showing slightly more loss. This may be a result of firearm use, doors located on the left side of tractor cabs, or head position as a farmer looks over the right shoulder when monitoring equipment on a tractor with no cab.
- While the magnitude of hearing loss in women is not as great as that for men, women in the farming community should be aware of the risk of high noise exposure. Exposure to high noise can start at a very early age on the farm, so all farm workers and families should follow good hearing conservation practices.
- Hearing protection can reduce the risk of exposure to high noise level on the farm.

Farm noise can cause permanent hearing loss

How Loud Can It Be?

Noise levels of farm equipment indicate that the hearing hazards on the farm are serious and real. Damage to hearing is seen with long-term exposure to sounds above 85 dBA, but even brief exposure to very loud sounds can result in permanent hearing loss. The following list shows some of the noise sources and intensity levels that can occur on the farm.

Tractors	74-112 dBA
Grain Dryers	85-110dBA
Combines	85-105 dBA
Chain Saws	77-115 dBA
Pig Squeals	85-112 dBA
Aerial Spraying	83-116dBA

How Did This Happen to Me?

The part of the hearing system that converts sound waves (a physical effect) into nerve impulses for your brain to handle (electrical signal) is called the cochlea. The actual conversion takes place when fluid, excited by sound waves conducted through the ear, sets the hair cells inside your cochlea into motion.

The hair cells in your ear act like the grass in your lawn — walk on them a little, and they recover. Walk on them too much, and the damage is permanent. Repeated and excessive exposure to noise is like walking on the grass too much. Dead hair cells won't let you hear, they won't grow back, and you can't re-seed your ear.

What Farmers Do to Protect Themselves?

Hearing loss within the farming community is relatively common. The risk of noise exposure, however, can be easily controlled.

- Wear hearing protection in noisy areas. If you must raise your voice to be clearly heard, noise levels may be high enough to damage hearing. Earplugs or earmuffs, properly fitted and used, can reduce the risk of hearing loss due to noise.
- Make sure that equipment is operated with cabs closed and cab seals intact. Noise from tractors and combines can be reduced by as much as 20 dBA by simply closing the door.
- Maintain equipment. Noisy mufflers and loose equipment guards can cause significant noise.
- Protect hearing in off-the-job situations, too. Firearms, tractor pulls, snowmobiles, all-terrain vehicles, concerts, and other noisy recreational activities contribute to total noise load on the hearing system.
- Annual hearing tests can provide early warning of noise-induced hearing loss before it becomes debilitating.

