

An Action Plan for Noise on the Farm

Everyone working in the farming community (male or 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.

1 EDUCATE

Information about the effect of noise on hearing, the importance and effectiveness of hearing protection and the early warning signs of noise-induced hearing loss should be provided to all farm workers.

2 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 or keep it from becoming worse.

3 REHABILITATE AND ACCOMMODATE

Even after some hearing has been lost, life can be made better. Audiologists can help alleviate the hearing handicap and focus on rehabilitation and coping with hearing loss in everyday life. Assessment for fitting and dispensing 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. National Safety Council ranks farming as one of the most hazardous occupations 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, farmers may notice the following as early indicators of noise-induced hearing loss:

- 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.

Contact your audiologist for additional information or assistance. To find an audiologist in your area, visit www.audiology.org and click on **Find An Audiologist**.



National Hearing Conservation Association

7995 E. Prentice Avenue, Suite 100
Greenwood Village, CO 80111
303-224-9022 • www.hearingconservation.org

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.

NOISE

and HEARING in the FARMING COMMUNITY



Important Facts About Hearing Loss in the Farm Community

- **HEARING LOSS IS ALWAYS GREATER** among farmers when compared to groups with little or no noise exposure.
- **NOISE-INDUCED HEARING LOSS (NIHL)** as been noted among children and adolescents (ages 6 to 19 years) living in the farm environment.
- **A DIFFERENCE IN HEARING BETWEEN EARS IS COMMON AMONG FARMERS**, with the left ear showing slightly more loss. This may be the result of firearm use, doors located on the left side of tractor cabs, head position as a farmer looks over the right shoulder when monitoring equipment behind a tractor with no cab or a physiological difference between the two ears.
- **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 family members should follow good hearing loss prevention practices.



- **WEARING HEARING PROTECTION CAN REDUCE** the risk of noise-induced hearing loss on the farm.

Farm noise can cause **PERMANENT**

How Loud Can It Be?

Noise levels of farm equipment indicate that hearing hazards 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. Some of the noise sources and intensity levels that occur on the farm are listed:

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



How Did This Happen to Me?

The part of the hearing system that converts sound waves into nerve impulses that are sent to your brain is called the cochlea. The actual conversion takes place when fluid, excited by sound waves conducted into the cochlea, sets fragile hair cells into motion.

The hair cells in your ears are like the grass in your lawn — walk on them a little, and they recover. Walk on them a lot, and the damage is permanent. Repeated and excessive exposure to noise is like walking on the grass too often. Dead hair cells will not let you hear, they will not grow back, and you can not re-seed your ear.

What Farmers Do to Protect Themselves?

Hearing loss within the farming community is relatively common. However, hearing loss from noise can be easily controlled.

- **Wear hearing protection** in noisy areas. If you must raise your voice to be 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 doors and windows closed** on the cabs. Noise from tractors and combines can be reduced by as much as 20 dB by simply closing the door.
- **Maintain equipment.** Noisy mufflers, loose equipment guards and leaky door/window seals can cause significant noise exposure.
- **Protect hearing in off-the job situations, too.** Firearms, snowmobiles, all-terrain vehicles, auto racing, concerts, and other noisy recreational activities contribute to total noise damage of the hearing system.
- **Annual hearing tests** can provide early warning of noise-induced hearing loss before it becomes a handicap.