According to the National Safety Council, noise ranks as the number one cause of hearing loss, followed by injury and disease. It can be estimated that thousands of farmers and ranchers suffer from both diagnosed and undiagnosed hearing impairments.

A wealth of assistive technology (AT) is available to assist with communication for persons with hearing impairments. Examples of personal, group and telephone communication are offered below.

**Work Strategies for the Farm/Ranch**

Farmers and ranchers with hearing impairments need more than assistive technology to accommodate their loss of hearing. They also need to develop accommodating work strategies.

When working around others, individuals with hearing impairment are encouraged to use a clearly defined set of hand signals for safe, efficient, definite communication. The American Society of Agricultural Engineers developed a set of agricultural hand signals to be used around high sound level equipment that should be suitable for use by most individuals with hearing impairments.

Wherever audible alarms are used on the farm or ranch, visual alarms should be installed as well, this aids in warning operators who may not hear the alarm.

Individuals who use hearing aids may find communication difficult inside farm buildings constructed with metal roofs and siding. These surfaces tend to reflect background noises which are then amplified by the hearing aid, making it more difficult to hear. Adding sound absorbing materials to the inside surfaces...
of metal buildings may reduce this background noise for hearing aid users. Materials that offer more soundproofing include fibrous and porous materials such as mineral fibers, glass fibers and open-cell foams.

Everyone working on the farm or ranch site should be aware of their surroundings and look before crossing any road or vehicle path and.

**General Personal Aids**

The most common AT device for those with hearing impairment is the hearing aid. However, as with most technology, there are additional options available. Before making a purchase, consult your doctor or hearing aid specialist. Hearing aid sales offices are available to test your hearing, but seek recommendations from a certified audiologist or otorhinolaryngologist.

Other devices that may be useful for a person with hearing impairment are:

- **Neck Loops** worn around the neck for use with a hearing aid T-coil. The neck loop has a plug that allows it to plug into the output jack of a personal receiver, a television, radio or other personal audio devices.
- **Alarm clocks** with flashing strobe lights or vibrators placed under the individual's pillow.
- **Phone call signalers** indicate incoming phone calls with a flashing light.
- **Closed caption decoders** print TV program or videotaped dialogue and sound effects on the TV screen (similar to subtitles). Note: not all programs or videotapes have closed captioning.
- **Smoke and fire detectors** flash strobe lights when activated.
- **Portable computers** can serve as a communication aid by typing messages to be relayed onto the screen.
- **Door knockers** respond to the vibration of a knock and flash, indicating someone at the door.

**Telephone Aids**

Many products are available to assist those with hearing impairments with telephone usage.

Telephone amplifiers are portable, battery-operated units that quickly attach to any phone earpiece to increase the listening volume. Amplified handsets have adjustable volume and completely replace the standard handset.

Individuals who are deaf or have speech impairment can type messages using a device called a text telephone (TT, or TTY). Each party must have a TT in order to communicate. The internet, email and instant message systems on the computer are also effective communication methods.

Other methods of coping with hearing loss or impairment that do not require the use of assistive technology include speech reading, sign language, interpreters, hearing dogs, and even good old paper and pencil.

**For more information**

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