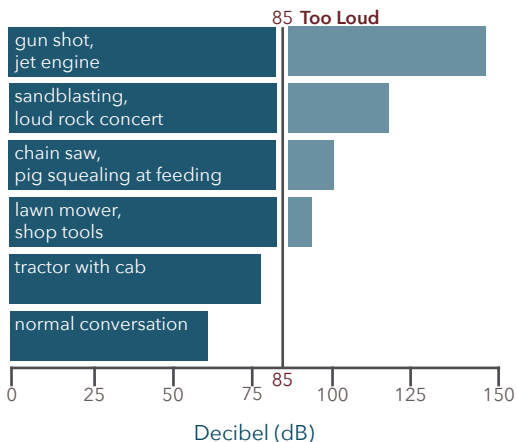


HEARING LOSS PREVENTION

Adapting the Hearing Conservation Program for Agriculture



Decibel Levels of Everyday Sounds



Noise exposure in agriculture impacts all age groups from youth to older adults – not just the typical workforce age population. The agricultural worksite may also be a home, exposing non-working family members to noise that is loud enough to cause hearing loss.

Noise Induced Hearing Loss (NIHL): permanent impairment resulting from exposure to high levels of noise. NIHL can result from either a one-time exposure to noise (burst) or from repeated exposure to loud noises over time.

According to the American Hearing Resource Foundation, one in ten Americans has hearing loss that affects his/her ability to understand normal speech. Hearing loss can be caused by illness or biological issues, but can also result from exposure to noise that is too loud.

TERMS TO KNOW:

- A **decibel** is the measurement used to describe the loudness of a sound.
- Sounds above the 85 decibel mark, or **permissible exposure limit**, will cause hearing loss over time. The **OSHA Action Level** is 85 decibels – the level that requires initiation of a Hearing Conservation Program.
- A **hertz** is the frequency or number of sound vibrations per second.
- **NRR or Noise Reduction Rating** is a measurement of how effective hearing protection devices (like ear plugs or muffs) are at reducing noise exposure.
- **TWA or Time Weighted Average** is the decibel or sound level over a given period of time, usually 8 hours.
- A **Hearing Conservation Program (HCP)** is a designed intervention program to prevent hearing loss. An HCP is required when noise levels measure at 85 dB or higher (OSHA's Action Level).

OSHA's Permissible Noise Exposure Table

OSHA standards for permissible exposure (29 CFR 1910.95)

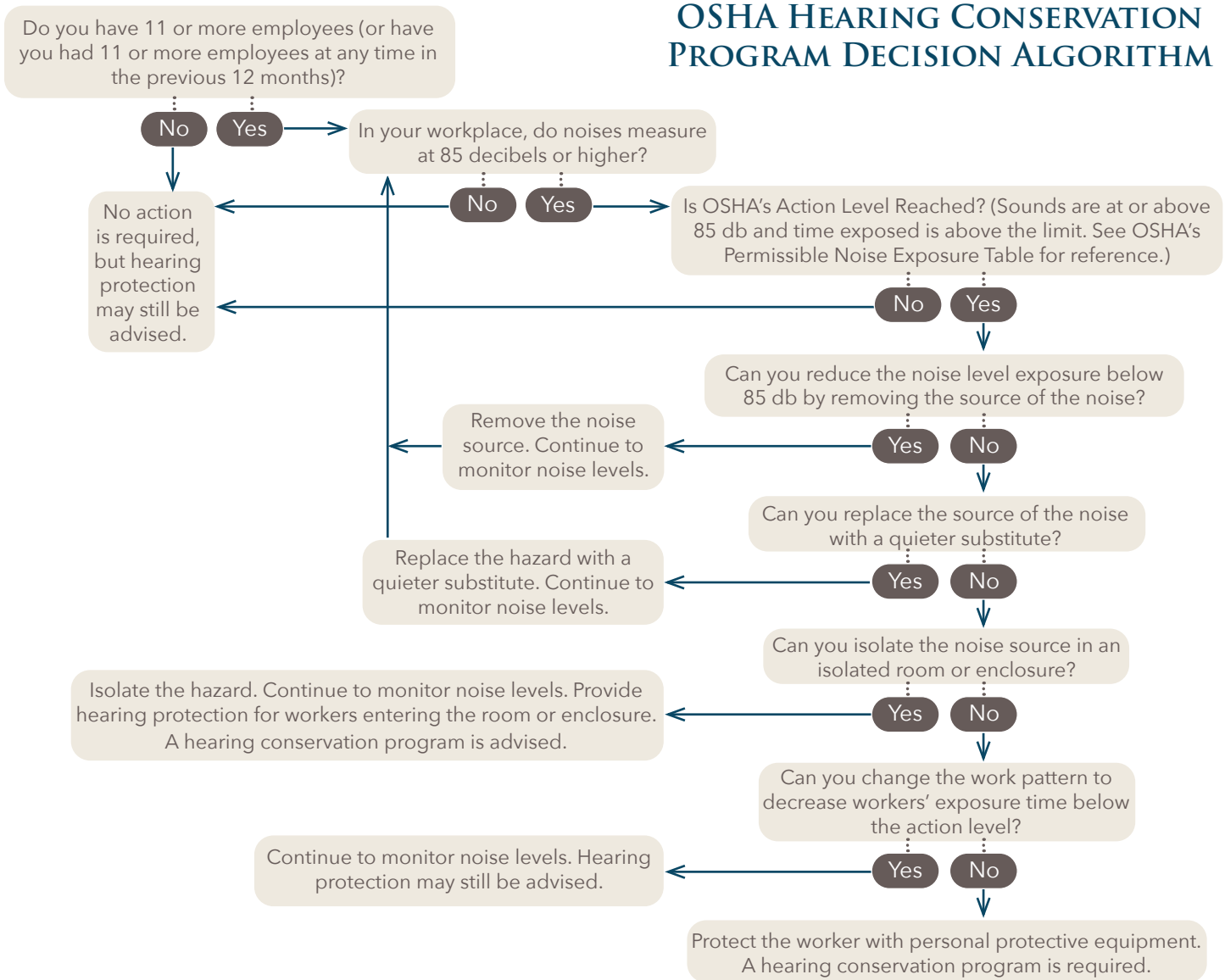
Sound Level dBA Slow Response	Permissible Exposure Time
90 dB	8 hours
95 dB	4 hours
100 dB	2 hours
105 dB	1 hours
110 dB	30 min.
115 dB	15 min. or less

(from standard sound level meter)

OSHA HEARING CONSERVATION PROGRAM

OSHA Hearing Conservation Program requirements do not apply to all of the agricultural workforce, but can be used to guide best management. If you work in the agricultural industry and have 11 or more employees, you could be cited under the General Duty Clause, with the General Industry standard, 29 CFR 1910.95 used as a reference. The rule states an employer must administer a continuing and effective hearing conservation program and make hearing protection available whenever employee noise exposures are at or above **the action level**. Reference: 29 CFR 1910.95(c) (2)

OSHA HEARING CONSERVATION PROGRAM DECISION ALGORITHM



A **HEARING CONSERVATION PROGRAM** has the following key components:

- Ongoing noise level monitoring (personal or environmental)
- Training (at least annually) for workers on the need for and use of hearing protection
- Appropriate hearing protection provided by employer for all workers exposed to noise above the action level
- Audiometric testing provided for workers by trained and certified testing personnel in an appropriate environment
- Record-keeping according to OSHA regulations

POINTS FOR CLINICIANS

Ask about:

- Pain, fullness, ringing in ears
- Allergies, recent cold or sinus infection
- Medications (prescription & OTC) - some meds may cause tinnitus
- Family history, noise exposures, personal protective equipment (PPE) use
- Noise exposure (at and away from work)

On exam, look for:

- Swelling, redness, drainage
- Scar tissue or wax plugs

Remember to document findings

For more information or to access a related webinar training go to www.agrisafe.org