

Chapter 3 - Health Hazards In Agriculture

Perhaps more than any other occupational group, agricultural workers are exposed to a tremendous variety of environmental hazards that are potentially harmful to their health and well-being. Farmers and farm workers suffer from increased rates of respiratory diseases, noise-induced hearing loss, skin disorders, certain cancers, chemical toxicity, and heat-related illnesses. There are precautions that can be taken to minimize or eliminate these potential hazards.

Farm Noise

Noise from farm tools and machinery can cause permanent hearing loss. Hearing loss may be temporary at first, but repeated exposure will lead to permanent damage. The damage can occur gradually over a number of years and remain unnoticed until it is too late. Some noises, such as gunshots, are so loud they can cause immediate permanent damage.

The permissible noise exposure standard for an eight hour day is 90 dB(A). The exposure standard for peak noise - for example gunshot - is 140 dB.

Spot the hazard

Some early warning signs of hearing loss include:

- Ringing in the ears after work;
- Difficulty understanding a normal conversation;
- Turning up the volume on radio or television when others appear to hear adequately;
- Failing to hear background noises, such as a ringing telephone or doorbell.

Typical farm noises that can damage hearing include:

- Tractor (95-100dB(A))
- Header (88-90dB(A))
- Orchard sprayer (85-100dB(A))
- Angle grinder (95-105dB(A))
- Bench grinder (90-95dB(A))
- Chainsaw (105-120dB(A))
- Pig shed at feed time (95-105dB(A))
- Shotgun (over 140 dB(lin)).

Assess the risk

If you have to shout above noise to be heard by someone a meter away, your hearing could be at risk. If noise cannot be reduced or removed at its source, and if there is no other way to separate people from damaging noise exposure, protective hearing equipment must be worn. Some farmers employ a noise consultant to take noise readings, assess hearing risks and recommend preventive measures.

Make the changes

You can reduce noise at its source by:

- Purchasing quieter machinery and equipment;
- Modifying equipment to reduce noise;
- Keeping machinery well maintained;
- If practicable, running machinery at lower revs.

You can protect people from loud noise exposure by:

- Limiting the time workers spend in a noisy environment.
- Isolating work areas from noisy machinery using distance or insulation;
- Scheduling noisy work when fewer workers are around;
- Using job rotation to alternate noisy jobs with quiet ones.

Protective equipment

- Where noise exposure cannot be reduced, hearing protection should be worn, e.g. on open tractors, when shooting, or when using a chainsaw.
- Try on ear muffs before buying, to ensure comfort and a sound-proof fit.
- The higher the SLC 80 (sound level conversion) figure for hearing protection, the higher the protection.
- Use lower SLC 80 muffs for moderately noisy jobs - a high rating might mask out important danger warning sounds.
- Ear plugs may be more comfortable for some farmers, but must be inserted with clean hands. Re-usable plugs must be cleaned regularly. Cotton wool is not sufficient.
- Clean and maintain hearing protectors. Replace worn or damaged parts. Keep protectors near the area of noisy activity, e.g. in the tractor cab.
- Wear a combination of ear muffs and ear plugs when shooting.

Remember

Once hearing is gone, it is gone forever, and hearing aids are of little help. They can make speech louder, but they cannot make it clearer.

Heat Stress

Heat stress occurs when the body builds up more heat than it can handle. High temperatures, high humidity, sunlight, and heavy workloads increase the likelihood of heat stress. Use fans, ventilation systems, and shade whenever possible. A work area sometimes can be shaded by a tarp or canopy. Drink plenty of water before, during, and after work, and consider wearing cooling vests, which are garments with ice or frozen gel inserts.

Allow time to adjust to the heat and workload. People who are used to working in the heat are less likely to suffer heat stress. To become adjusted, do about 2 hours of light work per day in the heat for several days in a row; then, gradually increase the work period and workload for the next several days. An adjustment period of at least 7 days is recommended. If the warm weather occurs gradually, workers may adjust naturally.

Good health has long been acknowledged as one of the most critical elements to quality of life. The health of farm workers is a vital resource to protect. Following recommended precautionary measures to protect your health can go a long way to enhancing your quality of life.

Stress on the Farm

What is Stress?

Stress is a person's reaction to something considered a challenge or a threat. It is the emotional strain and pressure exerted on mental and physical being by oneself and others. When under stress, the body begins to "gear up" for action. This makes a person stronger and more alert, but it also takes more energy.

How is Stress Harmful?

Health

When "geared up" under stress, the body begins to do more of some things and less of others. Blood circulation increases, but digestion slows down or even stops. This could lead to major health problems, such as heart disease and ulcers. Other less severe but serious health problems include sleeplessness, headaches, and poor digestion.

Relationships With Other People

Under stress, most people become so wrapped up in their own problems that they forget about everyone else. At the same time, they begin to take out their feelings on family members and friends. Stress quickly becomes a problem for the entire family--not just for the individual.

Efficiency in the Workplace

For a short time, stress may make someone a better, more efficient worker. But over the long haul, a person will wear down, becoming physically weaker and tiring more easily. A lack of concentration may result in poor management decisions. This can be especially dangerous when operating machinery.

More Stress

Stress will have a snowball effect. All the problems it causes with personal health, family, and work will become new troubles. Without learning how to control it, stress can become an endless cycle.

Steps to Take to Control Stress

1. Take a good look at yourself. How do you feel--both physically and mentally?
2. Make a list of things that cause stress in your life.
3. Think about how serious a problem stress is for you. Do you feel under constant stress, or does it come and go? Think about how stress hurts you. How has it affected your health and work? How has it changed the way you treat other people?
4. Finally, try to decide if you are under more stress now than you were a year or two ago. If stress has increased, have the pressures changed or your attitude toward them?

Learn How to Manage Stress

1. Talking about problems is a good way to relieve stress. Choose someone you can be honest with, and then share your problems and discuss solutions with them.
2. Learn how to recognize stressors. These might be a tightening of the neck and shoulders, stomach problems, or changes in behavior or relationships. The body is equipped with a complex system that give warning signs when the stress level is too high.
3. Look at the list of things that cause you stress and think about how serious each of them really is. Pick out things that no one can control, such as

prices and the weather. Then, when feeling stressed, evaluate the cause. Is it something minor or something you have no ability to control?

4. When dealing with a major problem, try to break it down into smaller parts. If the barn needs repair, pick out one job and concentrate on getting it done. Once that task is completed, go on to the next one.
5. Schedule the time realistically. Do not try and squeeze more work into a day than can be completed.
6. Take occasional short breaks from work. A few minutes will provide a refreshing start at the job.
7. Learn how to relax. Sit back in a chair and concentrate on relaxing tense muscles.
8. Develop other interests that will help you forget about your problems for a while.
9. Consider outside help, such as counseling or group clinics.

Take Care of Your Self

Fight stress by taking care of yourself. Here are some tips from the American Heart Association:

1. Exercise. Regular physical activity makes a person feel better and eases tension at the same time.
2. Eat well. A balanced diet is good for physical and mental health. Food is fuel for the body. The better the input, the better the output.
3. Sleep and rest. Make sure to get enough sleep and rest to refresh the mind and body.
4. Balance work and play. Besides being just plain fun, recreation can help a person enjoy work more.
5. Learn to accept the things you cannot change. Look for the best in people and situations. Remember, no one is perfect. Realize that fiscal and time pressure challenges due to weather, crop prices, and market demand are beyond your control.

General Health for Farm Workers

Know Your Physical Limits

Exceeding personal limitations is a factor in many farm accidents. Working in extreme heat or cold or attempting jobs beyond your physical capabilities elevates accident or illness risk.

Be ready for a safe day. This includes dressing right for the weather and job, getting the proper nourishment and adequate rest. Take work breaks to fight fatigue and extend your energy. Stop when you've had enough.

If it will be a struggle to lift or carry something, get help. Be sure you have the necessary competence (strength, skill and staying power) required by the job or activity to do it well and safely. Find the least taxing way to do things. Use motor power rather than muscle power when possible. Plan your work to make maximum use of your available energy.

Consider age and state of health in deciding what and how much you can do safely. Be willing to reassign jobs and activities that can no longer be done safely because of age or health problems. Exercise regularly for improved cardiovascular fitness, muscle tone, and to stay agile.