



Farm Safety Association

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SAFETY FOR AGING FARMERS

Aging is a naturally occurring process that has important implications for agricultural safety and health.

Although many senior farmers and farm workers make some allowances for age-related reductions in physical strength, speed, agility, sight and hearing, they can no longer handle some routine work tasks.

Injury data and anecdotal evidence suggest that senior farmers become more susceptible to work-related injuries as they move into their 60s.

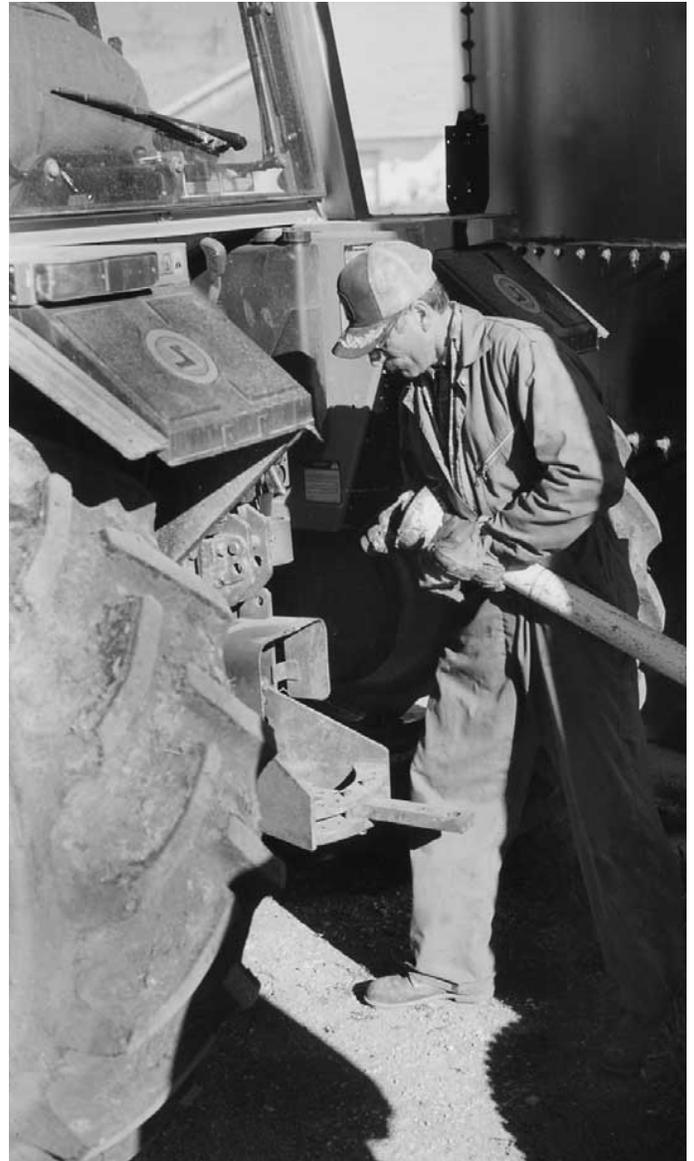
Age-Related Changes as Risk Factors in Farm Fatalities

Age-related sensory and physical impairments occur among senior farm operators at various rates. Eyesight, hearing, balance, muscle strength, and reaction time may remain good for some individuals who are well beyond age 65, while becoming significantly poorer in others.

Vision

As a person ages, there is a gradual decline in the ability of the eye to detect normal environmental stimuli. Because visual stimuli create awareness and guide information processing and reactions, impaired eyesight increases risk for senior farmers.

The ability to interact safely with the farm environment is highly dependent on the ability to see objects clearly at different distances, distinguish colors, quickly adapt



to changing light conditions, and focus both eyes on an object.

Generally, to see objects as clearly as they did when they were age 20, many 45-year-

olds need four times as much light. By age 60, the amount of light required to see clearly is double that needed by 45-year-olds.

Older individuals routinely work in situations with inadequate lighting.

They may operate farm machinery on overcast days and at dusk or at night. They may work inside darkened hay mows and grain storage, and climb and descend stairs in dimly lit buildings.

Hearing

Another change associated with aging is hearing loss. All people eventually suffer some hearing loss as a result of aging, ear disease, and exposure to loud noises.

In addition to normal hearing loss, studies suggest that farm workers of all ages have higher levels of noise-induced hearing loss than the general population.

Such losses result from excessive exposure to loud noise from tractors, field and farmstead machinery, animals, and other sources.

Senior farmers who have difficulty hearing words or sounds may not be able to detect warning signals, such as the sounding of an automobile horn, the approach of a fast-moving animal, or the warning yell of a co-worker. Hearing loss in each of these instances may lead directly to a fatality.

Sense of Balance

An individual's sense of balance is controlled by specialized structures (the vestibular system) located in the inner ear.

The structures provide information about the position of the head and also sense the speed and direction of body movements. With aging, the vestibular system becomes less effective in sensing body position and movement, thereby increasing the potential risk of falls for older persons.

A vestibular system whose function has been impaired may also result in the sensation of dizziness in some individuals, again putting senior persons at risk for falls.

Some situations in which the loss of balance and a feeling of dizziness increase the risk of injury for senior farmers include:

- Driving and other tasks where a feeling of dizziness may affect concentration.
- Walking across an uneven surface such as hay in a haymow, or moving about in a small fishing boat.
- Dizziness or a loss of balance around tractors and farm machinery poses a particularly serious safety risk of seniors falling into moving or unguarded parts of the equipment.

Muscular capability impairment.

Flexibility in the joints of the shoulders, arms and legs; adequate muscle strength; and good posture also are important functional criteria for senior farm worker's safety.

The process of aging causes collagen, the main supportive protein in the skin, tendons, joint cartilage, and connective tissues, to become irregular in shape.

The irregularly shaped collagen may reduce spine flexibility and create pain and discomfort in many working situations, such as:

- The manipulation of tractor and machinery controls.
- Lifting, carrying, and loading objects.
- Mounting and dismounting machinery; and climbing up and down stairs.
- Another cause of limited joint movement in senior farmers is arthritis in the joints of the knees, hips, and fingers.
- Reduced capability to move any of these joints may limit a tractor operator's ability to reach and manipulate controls.

- It also may reduce an operator's ability to turn his or her head or neck far enough to monitor pulled machinery or check for traffic on the highway before making a turn or changing lanes.
- Reduced muscle strength often compounds joint impairments like arthritis, rheumatism, bursitis, and frozen shoulder.
- Any one of these impairments, or a combination of them, may significantly increase the risk of injury to senior farmers by decreasing and delaying their responses to hazardous situations.

Safety and Health Suggestions for Working Senior Farmers

Generally speaking, reducing or controlling injury risks and hazards is not any different for senior farmers than for any other age group of farmers.

It is better to make physical changes to the working environment to completely remove or lessen exposure to hazards than to rely upon an individual's behavior around the hazard.

Suggestions that seem particularly pertinent to senior farmers' safety and health include:

- Increase lighting levels in barns and other buildings to accommodate the vision needs of older farmers.
- Ensure that all steps, stairs, and handrails are of excellent quality and well lighted with switches at both ends of stairs and by all entrances
- Put non-slip surfaces on walkways and steps where possible.
- Have easily operated or maneuvered fence gates, building doors, and animal handling devices.
- Use properly fitted and easily accessible personal protection devices.

With the large percentage of tractor-related

fatalities, it is imperative that senior farmers pay special attention to their ability to operate a tractor safely.

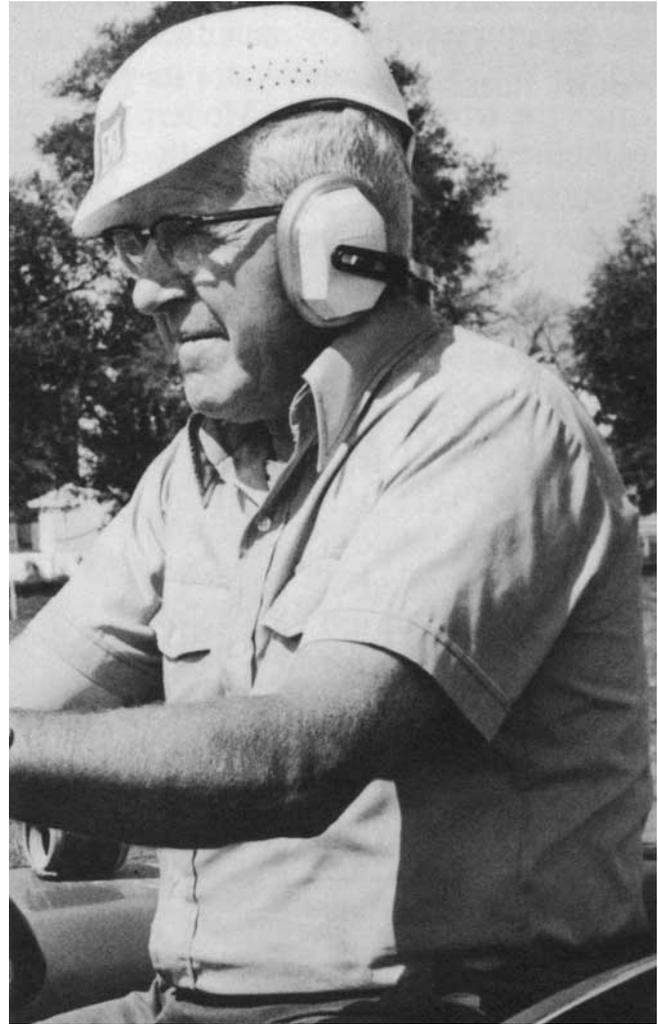
To reduce tractor operation risks, farmers might:

- Consider trading in older, less safe tractors for newer, safer models.
- Retro-fit older tractors, when possible, with ROPS and a seat belt
- Ensure that all tractor lights, brakes, shields, tires, etc., are in place, functional, and well maintained
- Refrain from carrying passengers; consider limiting tractor operation to daylight hours and roads with little vehicular traffic.
- The safest tractor for senior farmers is a newer tractor with an enclosed cab and ROPS.
- Senior farmers should be aware of over-the-counter drugs and prescription medications that may reduce alertness, decrease the sense of balance, or interfere in some other way with expected work tasks.



Get adequate rest, eat nutritiously and wear proper work clothes and footwear.

- Take work breaks and always stop when you are tired.
- Every farmer also should know the symptoms of heart attack and stroke.
- Don't do farm activity which may be risky for you.
- Senior farmers also should obtain regular medical check-ups (at least once a year) for vision, hearing, balance, and muscular range and mobility.
- They should consult with a family physician about how physical limitations may affect safety and health at work.
- There are benefits that come with age. Older farmers have the wisdom and experience that many younger workers lack. Use the enhanced judgment and skill to compensate for the decreases in reaction time and muscle strength that are inevitable.



The information and recommendations contained in this publication are believed to be reliable and representative of contemporary expert opinion on the subject material. The Farm Safety Association Inc. does not guarantee absolute accuracy or sufficiency of subject material, nor can it accept responsibility for health and safety recommendations that may have been omitted due to particular and exceptional conditions and circumstances.

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22-340 Woodlawn Road West, Guelph, Ontario (519) 823-5600.

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