

SAFETY FOR AGING FARMERS & RANCHERS

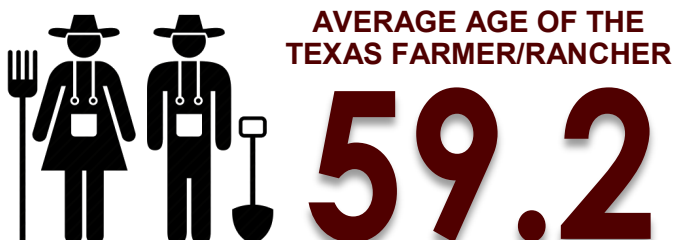
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While many individuals are retiring, farmers and ranchers are looking forward to 10 to 20 more years of productivity. The average age of the Texas farmer is 59.2 according to the 2017 Census of Agriculture (2017, Census of Agriculture), significantly higher than in any other occupation. Farming and ranching is a not only an occupation, but a way of life. This helps to explain why many farmers continue farming well into their 70's and 80's until they are either physically unable to perform essential tasks or it becomes too much of a risk to continue.

Agriculture can be a dangerous occupation, with about 100 agriculture workers suffering a lost-work-time injury every day ("CDC - Agricultural Safety", 2018).

Aging contributes to the risks involved in agriculture, as functional limitations develop as we age. Physical strength, eyesight, hearing, balance, and reaction time are significantly reduced in the aging process, yet the dangers of farm equipment, tractors, and livestock typically remain the same.

Thus, it is important that senior farmers understand the physical challenges and increased risks of aging, and make the appropriate changes in work tasks and activities to ensure the safety of themselves, co-workers, and family members.



AGE-RELATED RISK FACTORS

With aging comes risk factors such as decreased physical and sensory abilities. Most of the time, farms are not only the worksite, but also a homestead, thus extending risk to family members and co-workers. It is important to recognize some of the common age related factors that affect senior farmers.

Hearing Loss

Exposure to noise diminishes hearing over time. Farmers and ranchers are exposed to loud machinery and equipment on a regular basis, accelerating hearing loss in many cases. The ability to hear is important to many farm and ranch tasks (communicating with co-workers, machinery operating, etc.) and diminished hearing can increase risk for injury.



Declining Vision

Vision is the most common sense used to protect oneself from hazards. Vision declines with age, thus increasing risk factors for injury or secondary injury. For example, many 45-year-olds need four times as much light to see objects as clearly as they did when they were 20. By age 60, the light needed to see clearly is double that required by 45-year-olds. Farmers often work early-mornings or late into the evening when light is already limited. Vision impairments only compound the problem. Falls, the most common cause of injury among seniors, is often attributed to poor vision due to the inability to see obstacles and the loss of balance.



Balance

Balance (or equilibrium) is controlled in a portion of the inner ear. Fluid and small hairs in the semicircular canal (labyrinth) stimulate the nerve that helps the brain maintain balance. As you age, your ear structures deteriorate. The eardrum often thickens and the inner ear bones and other structures are affected. It often becomes increasingly difficult to maintain balance. This is a major cause of falls in seniors, especially senior farmers.



Proper body balance is essential to perform many farm and ranch activities, such as mounting and riding a horse, mounting and operating a tractor, climbing fences, loading and stacking hay, and carrying sacks of feed. Loss of one's sense of balance can mean falling from a high vertical distance, or finding oneself in a dangerous environment. For example, falling from a tractor is especially serious, since one may land in the path of tractor tires or towed implements.

Strength and Flexibility

As we age, our physical strength and flexibility limits us from doing the same tasks we have always done in the same manner. Flexibility in the spine and joints is also reduced, leading to pain and discomfort when the muscles are exerted. This results when collagen, the main supportive protein in the skin, tendons, joint cartilage, and connective tissues become irregular in shape.



Over time, a farmer's ability to manipulate machine and tractor controls, pick up bales of hay or sacks of feed, and climb ladders and steps becomes more difficult, making somewhat ordinary tasks relatively more difficult and hazardous. Senior farmers who regularly operate tractors may find it difficult to peer behind them to check towed implements or turn their bodies around to check for oncoming traffic before entering a roadway.

Combined Impairments

Decreased hearing, vision, balance, strength, and flexibility abilities that are a part of aging often combine to significantly reduce a person's reaction time in hazardous situations. Senior farmers often find that they can still do the same farm tasks as they did when they were younger; however the tasks often take longer, sometimes increasing risk of injury to themselves, co-workers, and family members. In these situations, experience in recognizing and limiting hazards is essential to offset the increased risks due to limited physical abilities.



SAFETY TIPS FOR SENIOR FARMERS

Reducing farm hazards and risk of injury and death is generally no different for senior farmers than for any other age group of farmers. The most effective way to minimize farm hazards is to redesign the work environment, machinery, or methods to perform work tasks to lessen the exposure to injury and make safety a priority.

It is much more difficult to change attitudes and behaviors, especially in senior farmers who have many years of experience where risky behavior has become acceptable and has had positive results.

In light of the limited physical abilities that may be encountered, the following suggestions are especially important to the safety and health of senior farmers.

➤ Increase light levels in barns and other work environments.

For example, this barn is equipped with LED lights, which provide ample lighting with fewer bulbs and reduces energy cost.

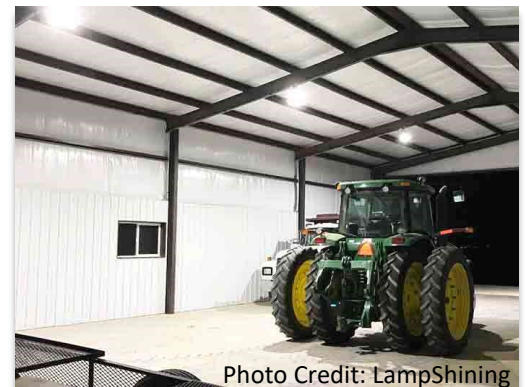


Photo Credit: LampShining

- ✚ Equip stairs and steps with handrails and non-slip surfaces
- ✚ Make sure all paths in barns and building remain clean and free from obstacles
- ✚ Ensure all corrals and animal confinement areas are structurally secure and equipped with escape routes
- ✚ Equip gates with easily accessible and workable latches and locks.

For example, the gate latch shown is easily opened and closed with one hand from both sides of the gate.



Photo Credit: Patriot

- ✚ Use hearing protection while operating loud equipment and in noisy animal confinement areas
- ✚ Limit particularly hazardous tasks to daylight hours where light is brightest
- ✚ Use powered lifts and mobile material carts to transport hay bales, feed, etc. around the farmstead.

Shown below:

Automatic UTV Feeder from Stull Feeders



Photo Credit: Stull Feeders

- ✚ Refrain from operating machinery and tractors while under the influence of prescription drugs which have side effects that limit your reaction time, sense of balance, and that interfere with your ability to perform work safely.

- ✚ Equip all tractors with rollover protection structures (ROPS) and seatbelts



Photo Credit: National Ag Safety Database

- ✚ Limit tractor operation to daylight hours

ASSISTIVE DEVICES

Farmers are unique in that they often remain productive much later in years compared to individuals in other occupations. One reason for this is their ability to modify their worksites or restructure their work tasks to accommodate their physical abilities. Contributions from farm family members also play an important part in helping older farmers continue to be involved on the farm or ranch.

Farmers are typically good problem solvers, adept at modifying equipment, tools, and machinery to make farm tasks easier. This ability to adapt prolongs a farmer's productivity. Recognizing the need for assistive devices and the large market potential, numerous existing and start-up companies now offer a range of products that make historically difficult and labor-intensive tasks much easier to perform. Not only do these products allow senior farmers and farmers with disabilities to continue being productive on the farm, they can benefit farm workers of all ages.

The National AgrAbility Project maintains a database of farm and ranch related assistive technology products and manufacturers on their web site

agrability.org/toolbox

References

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