

Are Aging Farmers at Risk at Work?

Agriculture has always been recognized as a dangerous occupation, especially for farmers and farm workers over the age of 60.

Now, an academic review headed by a University of Alberta researcher suggests that the risk of injury and fatalities among older farmers can be reduced if families recognize and manage key factors that contribute to farm injuries, such as chronic health problems and the use of prescription drugs to treat those health problems. Don Voaklander, a farm injury expert with the Alberta Centre for Injury Control and Research in Edmonton, Alberta, says farmers and farm families must work closely with health care providers to ensure that chronic health issues such as arthritis, heart problems, chronic back pain, limited mobility, impaired hearing, sleep deprivation, depression and asthma are managed properly in aging farmers.

Families must also recognize that the use of prescription drugs to treat chronic health conditions may be compounding the risk of injury among older farm workers. In essence, Dr. Voaklander's research, entitled *Health, Medication Use and Agricultural Injury*, suggests that injury rates and fatalities among older farmers can be reduced if farm families and health care providers do a better job of recognizing the factors that contribute to farm-related injuries.

"Farmers and farm families need to work closely with their health care providers to ensure issues such as chronic illness and concurrent use of several medications do not add excessive risk to older farmers and that diseases and health conditions are managed in the most appropriate manner," said Dr. Voaklander.

It has been reported that prescription drugs or other medications such as sedatives, non-steroidal anti-inflammatories, narcotic pain killers, anti-depressants, heart medications and drugs used to treat stomach ailments may have contributed to the farm injury in question. The researchers further determined that while significant attention is paid to disease factors that increase the risk of injury, much less work has been devoted to examining the role that medications may have played in contributing to farm injuries and fatalities.

The study outlines a variety of farming activities and specific risk factors that, according to recent academic studies and statistical data, ranked agriculture among the most dangerous occupations for older workers in North America. For example, the study suggests that the operation of tractors and other farm equipment requires accurate sensory input, rapid information processing, reliable judgement and fast motor responses. As such, any deterioration of visual abilities, reflexes, reaction times, muscle strength, joint flexibility and cognitive abilities could place elderly farm workers at a greater risk of injury or death.

"Farming as an occupation demands a variety of skills that come under the general label of human sensorimotor performance," said Dr. Voaklander. "These include skills in vision, hearing, memory and vigilance, as well as the ability to make decisions while performing both complex and repetitive tasks."

"Experimental and epidemiological evidence suggests that the use of certain medications is associated with the degradation of these sensorimotor skills and this may especially be true for farmers who are working in mechanized and other potentially high risk situations."

According to Dr. Voaklander, studies have shown that multiple drug use to treat a wide range of chronic and acute diseases can affect a person's orientation and coordination. Particular combinations of medication have been linked to an increased risk of impaired balance, falls and motor vehicle collisions. Diuretics, potassium supplements and drugs that alter blood pressure and pulse rates can also affect a person's ability to perform typical on-farm tasks, thereby increasing the risk of injury or death.

The findings regarding the use of medications and the performance of farm duties are particularly significant given the demographic trends that are expected to emerge in the North American farming community during the next two decades. As a whole, the North American population is experiencing a demographic shift that will see a larger proportion of the population fall into the age range of 65 years of age or older. In Canada, the 2006 Canadian Census suggests that the proportion of people aged 65 or older will double by 2031, reaching an estimated eight million people, or 21 percent of the country's total population. This noteworthy aging trend is also expected to affect a farming population that is already recognized as one of the oldest occupational groups in North America. In other words, as the North American farming population grows older, the number of farm injuries related to disease and disability risk factors, chronic health problems and medication use seems likely to increase.

Further complicating the health risks of elderly farm workers are factors such as insufficient rehabilitation after a previous injury, a lack of rehabilitation facilities and programs in rural areas and a tendency among farmers to return to work too quickly after an injury has occurred.

"Almost certainly, the most common health problem related to farm injury is prior injury," states Dr. Voaklander. "For owner-operators, there may be a tendency to return to active farming prior to fully functional conditioning ... and preparation for the resumption of rigorous farming activity after injury or disability may be inadequate."

The health of elderly farm workers is critical to the maintenance of the agricultural base in North America and health and safety research initiatives need to recognize this, Dr. Voaklander concluded.

"By integrating research from the fields of gerontology, occupational health and safety, and injury prevention, innovative interventions could be devised to assist the aging farmer in the continuation of farming."

Points to consider:

- Educate health care providers.
- Encourage proactive involvement of farm families.
- Conduct a comprehensive review of medications.
- Ensure proper recovery after an injury.
- Take steps to protect hearing and avoid hearing impairment.
- Get a good night's sleep.
- Make modifications to minimize arthritic pain, joint mobility problems and chronic back pain.
- Recognize injury risks associated with depression and stress fatigue.