

# Farm Safety: Keeping Everyone Safe on the Farm

Glen Blahey

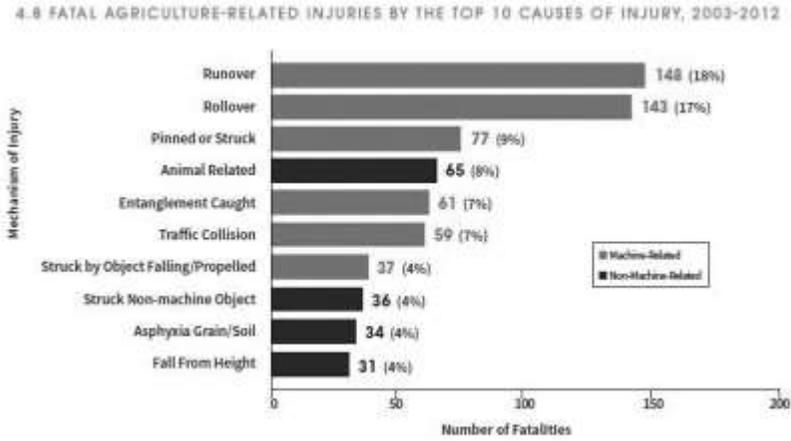
Canadian Agricultural Safety Association, 3325 – C Pembina Highway, Winnipeg, MB R3V 0A2. Email: [gblahey@casa-acsa.ca](mailto:gblahey@casa-acsa.ca)

## ■ Take Home Messages

- ▶ Ensuring the health and well-being of everyone that lives, works, visits and plays on your farm is both a moral and business-management obligation.
- ▶ Developmentally, children and youth do not have the same cognitive and physical abilities most adults possess. Caregivers have an obligation to protect the wellbeing of children in their care.
- ▶ Developing a health and safety plan or strategy (that will be compliant with general occupational health and safety standards) for a farming operation is something that any farm owner/manager can easily accomplish with a bit of thought and a guidance document like the Canada FarmSafe Plan.
- ▶ Safety is good business risk management. Decision makers, in cooperation with all farming members (including family and workers) have to have a mind-set of prevention. Instead of assuming that accidents and injuries cannot happen to them, they need to ask themselves and each other “what can go wrong?” and “what can we do about it?”

## ■ Introduction

Agriculture work-related incidents result in fatalities, critical injuries, permanent disabilities, illnesses and injuries of varying severity. These incidents involve the full spectrum of individuals that live and work on farms. Canadian Agricultural Injury Reporting (CAIR), looks at agricultural fatalities between 1990 – 2012. During that time, the agricultural fatality rate was 11.7 per 100,000 farm population (including non-workers). 2,324 people were killed in agriculture-related injury events. Of those killed in agriculture-related injuries, 47% were farm owner/operators, 11.7% (272) were children and youth under 15 years of age, and 38.2% were adults over 60 years of age. The top causes of fatal injuries are shown in Figures 1 and 2.



**Figure 1: The top causes of fatal injuries in Canada from 2003-2012. (Canadian Agricultural Injury Reporting (CAIR) 1990-2012)**

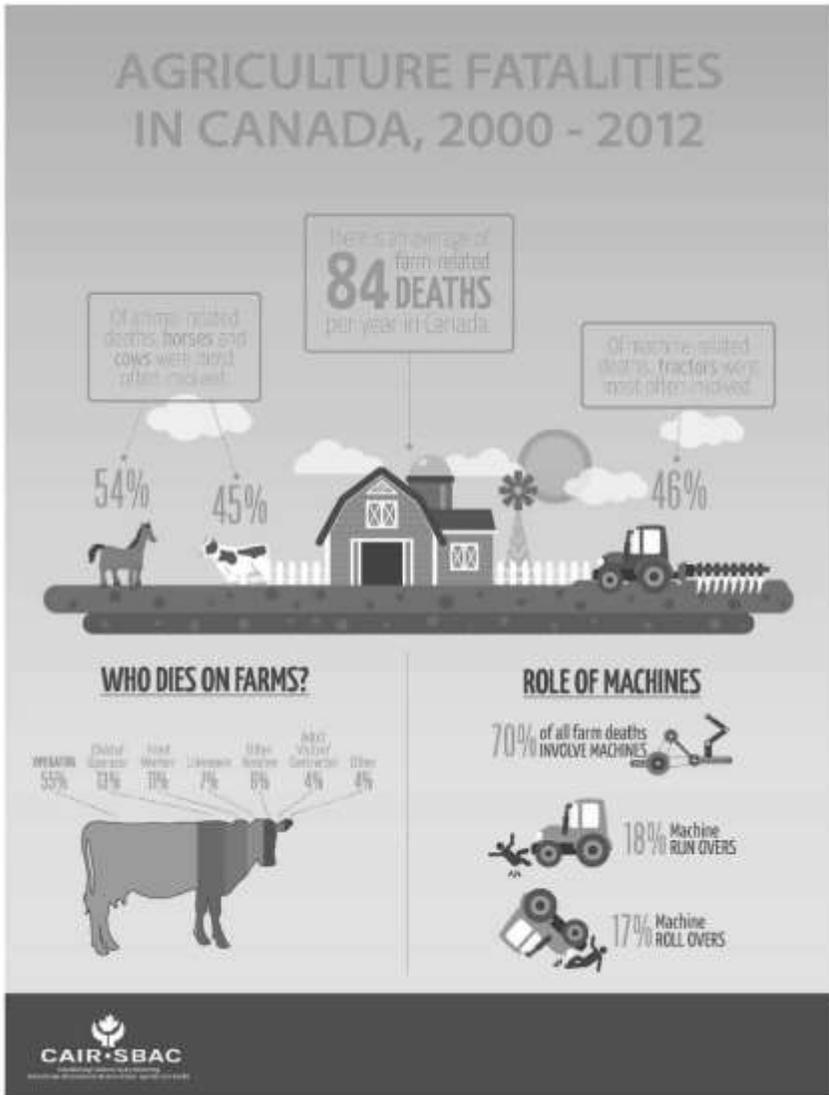


Figure 2: Agricultural Fatalities in Canada. Prepared by The Injury Prevention Centre, University of Alberta based on CAIR data, 2003-2012.

While recent hospitalization / non-fatal injury data are currently unavailable, historical data and experiential data from other occupational sectors suggest that there is a relationship between fatalities, critical injuries, minor injuries and close calls. In 2009, SMARTRISK conducted an Economic Burden of Injury Within the Agricultural Population in Canada. The analysis found that in 2004 there were:

- 184 deaths
- almost 4000 hospitalized
- over 1,000 permanently disabled
- over 72,000 emergency room visits
- \$373 million in total economic costs

(SMARTRISK 2009)

For every fatality, there were approximately 22 hospitalizations; for each of those hospitalizations, there were 18 emergency room visits. The direct costs of agricultural injury in 2002 amounted to \$208 million. The indirect costs were \$165 million (SMARTRISK 2009).

## ■ Impact of Agriculture-Related Fatalities

In 2004, researchers at Queens University in Ontario began research in establishing economic impact of agriculture-related injuries on an individual farm's economy. By looking at agriculture-related fatality data, costs of production, health care costs and available workers' compensation data from other industrial sectors, the Queen's University team were able to create a substantial profile.

The researchers estimated that the average cost to a farm's economy was approximately \$700 for a non-hospitalized injury, \$10,000 for a hospitalized injury; \$143,000 for a permanent disability and approximately \$275,000 for a fatality (Locker et al., 2003).

What is not measurable is the family and community impact of an agriculture-related fatality. It is impossible to measure the social impact of losing a community member. These agriculture-related fatalities may mean the loss of a community leader, an important volunteer, a classmate; in families, the loss of a parent, a spouse, or a child. The emotional and social impact reverberates across all spectrums of close-knit rural communities.

Other impacts of a traumatic agriculture-related farm injury or fatality include disruptions like hospital stays, a shift in farm management responsibility, disruptions or changes in off-farm employment to accommodate for the injury or death, and personal relationship challenges. Impact on the mental wellbeing of affected community members and family members can range from regret to survivor's guilt. These social impacts are also vital in understanding the issue of agriculture-related injuries and fatalities.

## ■ Who is at Risk

Unlike any other industrial sector workplace, agriculture has the notoriety of impacting everyone from toddlers to nonagenarians being seriously injured or killed in agriculture-work-related incidents. CAIR data indicate that between 2003 and 2012, 30 children aged one to four were killed in an agriculture-related incident, and 68 individuals over the age of 80 were killed (Canadian Agricultural Injury Reporting (CAIR) 1990-2012). A challenge of preventing these agriculture-related fatalities is to address the culture. Often there is rationalization regarding the "way of life" or the description of the agriculture-related fatality as a "freak accident." There is often language that works to justify the loss of both the very young and the very old in agriculture-related incidents.

Through injury surveillance systems like CAIR, it is clear who is dying on Canadian farms and how. However, the agricultural industry is slow to react and adjust to the research. (Agri)Culturally, there is emphasis placed on preparing young farm children to be stewards of the land. The question is how are these children being taught, and what are the costs?

In 2008, a 14-year-old died when he lost control of the ATV he was operating and it crashed over an embankment. His obituary read like that of a farmer that had been farming for 20 years. In 2014, two brothers, 16 and 10, died when the tractor they were riding on with a baler in tow, careened down a hill and crashed, killing both boys. They were remembered for their love of farming. Their mother spoke about them by saying "keeping her kids from farm work wasn't an option". These three boys were brothers. (The Canadian Press 2014).

There is seemingly great parental pride in children operating machinery or caring for livestock at a young age. There also appears to be a perception that children doing adult work creates a good work ethic.

## ■ **Beyond Emotional Loss, Safety is Business Risk Management**

Along with the personal and emotional impacts associated with agriculture work-related injuries, there are serious business losses to consider. Agricultural workplace managers manage their operations to maximize productivity and efficiency while minimizing losses. The economic burden of injuries and illnesses are significant.

The strategy for controlling the losses related to workplace injuries and illnesses can be easily integrated into existing risk management programs such as On-Farm Food Safety or supplier required protocols, which are already in place on most farms. The only difference is that most risk management programs look only at the product or process to produce or maintain the commodity. It is imperative to include the necessary details to ensure that farmers and farm workers are as protected as the commodity is.

There are four key steps to making farms safer places.

1. A commitment, or a policy statement, is the first step in creating a safe farm. This should be shared with all people who live, work and visit the farm.
2. The second essential step is to recognize and understand the factors that can impede the success of creating a safe farm. Hazards need to be identified and acknowledged.
3. Once hazards have been identified and acknowledged, control strategies have to be discussed and implemented. The control strategy will vary by hazard and will depend upon the hazard. Multiple control strategies may have to be engaged to be effective in addressing the hazard.
4. Lastly, it is essential that everyone who lives, works and visits a farm understands that the safety of everyone is not just one person's responsibility. Safety is a shared responsibility and will only succeed if there is a clear delineation of responsibilities and effective communication between everyone that lives on, works on and visits your farm.

## ■ **Policy Statements**

The best way to counter the oft-used excuse, 'I didn't know, no one ever told me', is to put the information in writing; make it visible for all to see and make it required reading. There are two types of policy statements that should be

used. The first is a general statement that proclaims the farm's commitment to everyone's health and wellbeing and charges others with the responsibility to comply with the policy and fulfill their personal responsibilities to protect themselves and anyone who may be impacted by their actions.

The second type of policy statement is an operational policy statement that sets out how farm owners/operators expect a particular activity or practice to be carried out. This meshes with the Standard Operational Procedures required by programs such as On-Farm Food Safety.

Whether a farm owner/operator is concerned about driving practices or the use of personal protective equipment, operational policies can establish the core expectations and limitations. These expectations and limitations can then be supplemented by specific work practices for the hazardous jobs.

## ■ Hazard Recognition

Identifying hazards, while not a difficult task, is a conscious objective analysis of the work environment that answers basic questions such as: Does that object, animal, chemical, machine, tool, etc., have the potential to cause harm to someone or cause an interruption of the work process?

Hazards can be biological, chemical, ergonomic, physical and lifestyle (smoking, stress, diet, etc.). During a hazard assessment, it is essential to maintain a neutral attitude. It is unhelpful to assume that injuries or problems won't happen.

## ■ Control Strategies

Once hazards have been isolated and identified, it's essential to create control strategies to address the issue. Control strategies can be grouped into five categories.

1. **Personal wellness assessments:** These encourage farm owner/operators, farm workers and farm families to recognize that maintaining optimum health brings dividends including lower stress levels and safer behaviour.
2. **Integrated safety Standard Operating Procedures (isSOP):** isSOPs put (safe) work expectations into writing. Not only do isSOPs document safety expectations, they also act as training tools, employee performance evaluation tools, and operational performance evaluation tools. In the event that an incident should occur, an isSOP will demonstrate due diligence, showing hazards were considered and procedures were instituted to control the hazards.

3. **Emergency Response Plan:** This plan considers potential emergencies that might occur, and the actions needed in response. Fast, coordinated responses in emergency situations can lessen the impact of an injury and may even save lives. Additionally, bringing attention to such a hazardous situation may provide motivation to not have that hazard cause an incident.
4. **Training:** Training is the foundation of prevention. If the people performing the task have been trained, they have been informed of the expected procedures as well as expected outcomes. Permitting someone to learn by trial and error is a gamble, and negates expectations of quality work.
5. **Investigation:** Although investigations sound ominous, they are exceedingly valuable. Taking the time to analyze what went wrong when an incident occurs determines why there was a system failure and what can be done to prevent its reoccurrence and minimize future losses.

## ■ Communicating Responsibilities

Safety and health can be enhanced by clarifying responsibilities during routine work and during emergency situations. Everyone on the farm must be able to rely on each other to do their jobs responsibly and to protect the health and safety of every other person on the farm.

Communication is bi-directional, as safe work practices are only effective when there is ongoing dialogue between everyone involved in the farming operation.

## ■ Benefits

Safety and health planning is (farm) business risk management. A 2012 White Paper by the Occupational Safety and Health Administration (OSHA) from the U.S. Department of Labor titled "Injury and Illness Prevention Programs" looks at various research on the 'bottom line' of effective programming.

"Based on its review of the literature on the effectiveness of these programs and on the experience of the states that have implemented injury and illness prevention program requirements, OSHA estimates that implementation of injury and illness prevention programs will reduce injuries by 15 percent to 35 percent for employers who do not now have safety and health programs." (Occupational Safety and Health Administration (OSHA) 2012)

## ■ Resources and Support

There are various templates for developing occupational health and safety programs. Canada FarmSafe, developed by the Canadian Agricultural Safety Association (CASA), is one of the very few that was specifically developed for a primary agricultural workplace.

The Canada FarmSafe Plan has been adapted for use in Nova Scotia, Quebec, Ontario, Saskatchewan and Alberta. CASA has associates across Canada to assist individual producers in enhancing their health and safety practices.

Additionally, CASA has an extensive collection of resources, including training aids (<http://casa-acsa.ca/teaching-kits>), age appropriate tasks for children (<http://casa-acsa.ca/search/node/child%20safety>), online and in-person training (<http://casa-acsa.ca/training>), and direct member consultations ([info@casa-acsa.ca](mailto:info@casa-acsa.ca)).

## ■ References

- Canadian Agricultural Injury Reporting (CAIR). 1990-2012. *Agriculture-Related Fatalities in Canada*. Accessed December 14, 2016. <http://www.cair-sbac.ca/>.
- Canadian Agricultural Safety Association (CASA). 2004. "The Economic Burden of Injury Within the Agricultural Population in Canada."
- Locker AR, Dorland JL, Hartling L, Pickett W. 2003. "Economic Burden of Agricultural Machinery Injuries in Ontario, 1985 to 1996." *The journal of rural health* 285-91.
- Occupational Safety and Health Administration (OSHA). 2012. *Injury and Illness Prevention Programs*. White Paper, U.S. Department of Labor.
- The Canadian Press. 2014. "Saskatchewan Family Loses Three Children in Farm Accidents." *The Globe and Mail*, November 30.







