

MODULE TWO

Injury Trends



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Learning Objective

Upon completion of this unit you will be able to identify injury trends in the dairy industry and apply that knowledge to assessing hazards and making safety improvements on your dairy operation.

Learner Outcomes:

1. Describe major injury trends in the dairy industry.
2. Identify areas of concern for potential employee injury that are present on the dairy operation.
3. Understand the high risk areas in order to prioritize and focus more attention to those areas.
4. Understand the relationship between injury and illnesses and the effect on profitability.

Injury Trends: Looking at the Numbers

Dairy farming continues to be a high hazard occupation but the dairy industry can no longer afford to leave safety to "common sense." Employee safety and health need to be an integral part of a successful management system.

Losses from injuries and illnesses cut deep into profits and these losses (direct and indirect) are not easily recovered. Consider if you have an injury that costs you \$1000 and you have a 1 percent profit margin, your business needs an additional \$100,000 in sales to make up for the loss.¹

Developing a safety and health plan that only meets regulatory compliance will not be effective or sustainable for today's dairy business. Similar to addressing milk quality issues and cost of production, safety and health of employees (hired or family) needs to be a continual improvement process.

Assessing the Risks and Hazards

You want your management system to be able to "weather" many types of risk management situations. The first step in a planning process is assessment. It can be a challenge to consider the possible risks or hazards present on a dairy operation. Start by identifying your areas of concern. These concerns may be based on an injury or illness that already happened or items that you've learned about from others.

Identify your 3 top areas of safety or health concerns on your dairy operation?

1.2.3.

Why did you identify these three areas?



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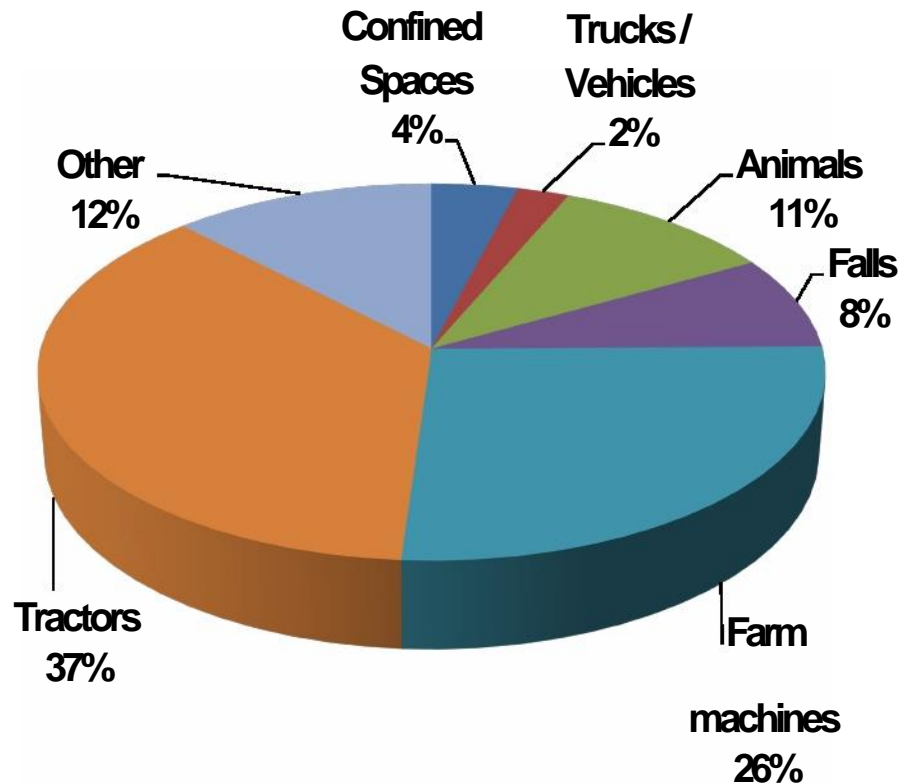
National Agricultural Injury Trends

According to the 2004 Occupational Injury Surveillance of Production Agriculture conducted by the National Institute for Occupational Safety and Health (NIOSH);

- An estimated 80,300 work-related injuries occurred to adults on farms (9.2 injuries every hour).
- Almost 75% (58,600) of the injuries were to adults living on the farm.
- The most common types of injuries were sprains, strains, and torn ligaments (22%), fractures (15%), and cuts (13%).
- The most common sources of injury were animals (16%), the ground (16%; usually from falls), and tractors (5%).
- Every day, about 243 agricultural workers suffer a lost-work-time injury. Five percent of these injuries result in permanent impairment.

How does this data compare to types of injuries on Wisconsin Dairy Farms?

Common Causes of Fatalities on Wisconsin Dairy Farms



*Data adapted from Mike Rankin, Fond du Lac County Extension Agent

Tractors account for the highest number of deaths, with 53% of these deaths caused by rollovers. Runovers and falls from the tractor account for another 35% of these deaths. Machinery follows closely for number of deaths with 2/3 of machinery deaths caused by entanglements or pinning.

The next highest category of fatalities is attributed to animals. It should also be noted that animals are the leading cause of non-fatal injuries on WI farms.

Data not shown on the chart is related to the age groups that most often suffer fatalities. Farmers and farm workers who were 45 years of age or older account for 2/3 of the total number of farm-related fatalities. The second largest category is farmers/workers 20-44 years of age at almost 18% of fatalities.

Common Causes of Injuries on Wisconsin Dairy Farms

In order to assist Wisconsin dairy producers with assessing injury and illness situations on dairy operations, Rural Mutual Insurance provided information* on 1153 worker compensation insurance claims from January 1, 2007 thru February 2, 2012. Data was reviewed and coded based on Wisconsin Standard Coding for Worker Compensation Claims.

Top Three Common Causes of Injury		
Category	Total number	Percent
Animals (dairy cattle)	326	28%
Slips, Trips and Falls	216	19%
Struck by object	148	13%

Most Common Injuries Overall Based on Combined Cause Codes		
Injury code	Total number	Percent
Hand	124	11%
Fingers	105	9%
Low back	73	6%
Eye	72	6%
Shoulder	64	6%
Knee	54	5%
Other/undetermined	156	14%



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Animals

It is not surprising that animals (dairy cattle) were the leading cause of injury. A review of the 326 total animal-related injuries found the most common causes of these injuries:

Most Common Causes of Injury Within 'Animal' Code (n=326)		
Category	Number of cases	Percent
Being kicked, stepped on, thrown from, or struck by	274	84%
Scratched or mauled by	33	10%
Trampled or crushed	13	4%
Bitten or pecked	24	1%
Other		1%

Top 5 Injury Types for These 326 Animal-Related Injuries		
Injury Code	Number of cases	Percent
Hand	66	20%
Chest, ribs, sternum	30	9%
Wrist	17	5%
Shoulder	16	5%
Lower arm	16	5%
Knee	15	5%

A majority of the injuries from finger tips to shoulder area are due to the worker being kicked by the cow and most often during milking. Chest, rib, sterum injuries commonly noted that the animal pushed, crushed, and mauled the worker. A common incident sequence is that the cow pushed or slipped and as a result the worker was pushed into a part of the barn structure or knocked down.

Slips, trips and falls

Slips, trips and falls are a concern for many industries and accounted for 216 of 1153 cases. Wisconsin winter weather conditions and manure are two factors that increase the potential for slips, trips and falls around a dairy farm and are reflected in the "on slippery surface" category.

However, the leading category of "to a different level" involved individuals who fell from skid steers (21 cases), tractors (11), ladders (8), steps (6), and wagon or trailer (4).

**Most Common Causes of Injury
Within 'Slips, Trips, and Falls' Code (n=216)**

Category	Number of cases	Percent
To a different level	74	34%
On same level	61	28%
On slippery surface	46	21%
Stumble, no fall	35	16%



Top 5 Injury Types for These 216 Fall-Related Injuries

Injury Code	Number of cases	Percent
Ankle	29	13 %
Knee	27	13 %
Low back, sacrum, coccyx	27	13 %
Other	26	12 %
Shoulder	14	6%

Struck by object

Gates, chutes and doors are standard in dairy facilities. A worker's interaction with these types of stationary objects resulted in 148 injury cases. A review of the cases shows that descriptions include stationary objects related to gates within milking parlors, barns or on chutes and were often times associated with an action of a cow's movement.

**Most Common Causes of Injury Within
'Struck By Object' Code (n=148)**

Category	Number of Cases	Percent
Being lifted, stationary object, falling object, tool, fan blade, etc.	81	55 %
Caught in, under, or between an object being handled, earth slide, collapsing bldg.	28	19 %
Projectile	21	14 %
Door	15	10 %
Tree	3	2%



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Top 5 Injury Types for These 148 'Struck By Object' Related Injuries		
Injury Code	Number of Cases	Percent
Fingers	44	30 %
Other	15	10 %
Hand	14	9% 9%
Head	13	6%
Shoulder	9	

How Injury and Illness Costs Impact Your Profitability

In completing your Form 300A, Summary of Work-Related Injury and Illness, you calculated days away from work, days with job transfer or restrictions, and number of recordable cases. The Wisconsin Dairy Farm Worker Compensation Data combined with your business recordable injuries and illnesses provide an overall view of potential injuries and illness.

With every injury and illness there are direct and indirect costs. No one plans to have an employee get injured or even killed at their worksite. The most difficult part of losses from injury and illnesses are those losses related to human emotions and life.

OSHA's Safety Pays Program (<http://www.osha.gov/dcsp/smallbusiness/safetypays/index.html>) can be used to calculate loss of profitability to your operation.

It has been estimated that for every \$1.00 invested in an effective safety and health program, the return on investment is \$4.00- 6.00. Reducing your injury and illness experiences may lead to lower Worker Compensation Insurance costs too. Wouldn't you rather have dollars to invest in your business than trying to recover from losses? Better yet, safe and healthy employees are essential to that quality and productive business you've worked so hard to build.

Footnotes:

¹ <https://www.osha.gov/Region7/fallprotection/safetypays.html>

² <http://www.cdc.gov/niosh/docs/2010-137/> accessed June 4, 2012.

*Information provided by Rural Mutual Insurance contained no personal identifiers on the injured individuals nor did it contain any information that would identify the farm. Rural Insurance is a leading provider of Worker Compensation Insurance in Wisconsin.

Review:

1. Have your top 3 areas of concern for health and safety on your farm changed after viewing this data? If yes, how? _____

2. Identify the top three causes of injury related to dairy farming:

3. How can you use this data to improve safety on your farm?



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