

Worker Safety Training on Dairy Farms in Northeastern Colorado

Noa Roman-Muniz, DVM, MS; ILM, CSU

Over the last decade, the population of workers of Hispanic descent in the U. S. dairy industry has increased dramatically. The background experience and work-related training of Hispanics in entry-level positions on Colorado dairies is variable. Hispanic dairy workers, a majority of who are foreign-born and Spanish speaking, may or may not receive training about the tasks they perform or safety measures necessary. Across the dairy industry, worker training is inconsistent in content, scope and extent, and may lack relevant cultural and linguistic considerations. All these factors, in the context of an industry known for its high rates of fatal and nonfatal work-related injuries may explain why more efficient worker training has been consistently identified as a priority by Colorado dairy producers.

In 2002, the ILM team conducted a study entitled *Worker Safety Training: Current Status and Future Needs of the Colorado Dairy Industry*. The goals of this study were to define the existent training practices on dairies in Colorado, to identify factors in the workplace to which producers and workers attribute work-related injuries, and to define the safety and task-related training needs of entry-level dairy workers. The study involved a survey of management and workers from dairy operations located in northeastern Colorado. Participant dairies and dairy workers were enrolled on a voluntary basis and the survey was conducted in English or Spanish, according to the participants' preferences.

Background experience and training varied tremendously among the interviewed workers. A majority of the workers were Mexican-born, Spanish-speaking and male. When asked about the training received upon arrival at the dairy, the extent of the training reported by workers ranged from no training at all to a combination of verbal and formal instruction, demonstration and written materials. The training received by the workers also varied in duration and the person providing the instruction. Some workers reported having received safety training along with task-related training, while others reported having received only safety training or task-related training, but not both. The training reported by the workers frequently differed from that reported by the operator or manager from that same dairy. The person providing the training to the workers was in most cases a co-worker or a supervisor, but in rare instances, the workers reporting having an outside individual doing the training.

Both dairy workers and dairy operators were asked their opinions regarding the value of the safety and task-related training practices existent on the dairy. Interestingly enough, both groups perceived the task-related training offered at their dairies as more valuable than the safety training. Both groups also agreed that more formal work safety training is necessary to avoid work-related injuries and expressed an interest in participating in such programs in the future.

In an attempt to explore the rate of work-related injury and disease on Colorado dairy

operations, dairy workers were asked to list any work-related injury suffered in the 12-month period prior to the survey. The workers were also asked the likely cause of the injury, the type of medical attention received, and the number of workdays lost as a result of the injury. Dairy operators were asked the number of work-related injuries, workdays lost experienced by their workers in a previous year, and to rate causes of work-related injuries according to their frequency. The reported number of injuries and work days lost per worker per year were very similar between the two groups. Nearly half of the workers interviewed suffered at least one work-related injury in the twelve months prior to the survey, and the average number of work days lost after the injury approximated six days. Almost half of the injuries were seen by a health professional. The injuries reported by the workers ranged from being stepped on or kicked by cows to fractured bones as a result of machinery falling on a foot. One fifth of the surveyed workers reported experiencing respiratory problems and one in seven of all workers reported suffering skin problems related to work. However, workers and dairy operators had different opinions in regard to the underlying cause of work-related injury. According to the workers, most injuries happened as a result of direct contact with animals (cows or bulls) and less frequently due to human error. Dairy operators, however, believed that human error constitutes the most common cause for work-related injuries, more common than direct contact with animals or machinery.

Statistical analysis of the data was then performed to determine the relationship between the type of training received upon arrival at the dairy and the occurrence of injury. The results were both interesting and useful in the assessment of the existent task-related and safety training practices on Colorado dairies. Although safety training by itself did not have a protective effect against experiencing a work-related injury, workers who received task-related training were several times less likely to be injured than workers who did not receive task-related training. Of the workers who received any type of training (safety or task-related), those who received training as a combination of verbal instruction, demonstration and supervision were least likely to suffer a work-related injury. Also, workers who were taught by a co-worker were less likely to be injured at work than those workers not taught by a co-worker. Being taught by a supervisor had no apparent protective effect against being injured at work.

All these observations suggest that task-related training that includes safety practices might improve worker safety on dairy farms. By including safety issues into task-related training, hazard recognition and avoidance practices could be presented into a context familiar to the learner. By having new concepts presented into the context of everyday job tasks, the learner might be able to retain the new information more effectively. The fact that workers taught by co-workers are less likely to be injured may suggest that the language and cultural mannerisms used by the instructor could possibly enhance the communication of safety information vital in the prevention of work-related injuries.

It is evident that the dairy workers of northeastern Colorado would benefit from language- and culture- sensitive training interventions that incorporate safety issues into task-related training. It is also clear that the dairy industry of Colorado is very hazardous, that dairy operators are aware of this fact, and that producers understand the need for

more effective safety training. The challenge therefore falls to educational institutions and veterinarians to develop worker training interventions that fit these criteria. Relevant measures of farm productivity should be measured before and after such training, so the economic value of worker training can be more objectively assessed.