

IMPROVING SAFETY IN CATTLE SALE HANDLING FACILITIES

Injury Statistics

A number of incidents at auction-mart facilities throughout Western Canada involved livestock/human interactions that resulted in injuries to workers. Many incidents involved gates being pushed into workers when moving livestock from a pen or corral. The Prairie Agricultural Machinery Institute conducted a study for the Saskatchewan Ministry of Agriculture to recommend potential improvements to worker and livestock safety.

Strategy of Prevention

Hierarchy of controls (**Figure 1**) is used in industry to minimize exposure to hazards in an organized method. Control methods at the top are potentially more effective but harder to implement, while control methods at the bottom are easier to implement but less effective. Based on the hierarchy of control, the following list of recommended solutions was developed.



Figure 1. Hierarchy of Safety Controls.

Recommended Solutions

Elimination

Total elimination of the hazards cannot be achieved since the cattle must be sold, and both gates and workers are needed to make this happen.

Substitution

Instead of running cattle through the sales ring, the buyers could watch video feed from pens.

Engineering Controls

Spring-loaded latches with pull rings or folding D-rings are beneficial to prevent accidental opening and allow easy operation of the latch by the worker

Removing the top bar, replacing it with a flexible material or adding padding onto the upper bars on the latch end of the gate could reduce employee head injuries (**Figure 2**).

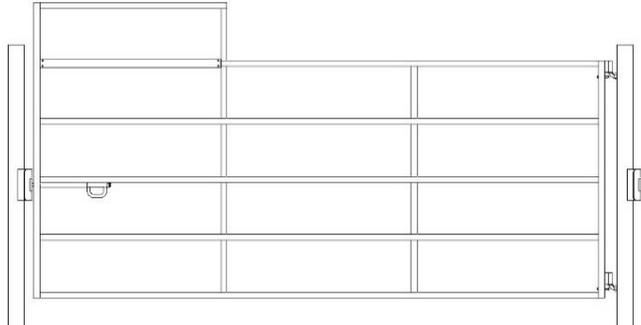


Figure 2. Gate with modified top bar(s).

Stoppers on latch posts would limit the gates to swing only ninety degrees. These stoppers could be manually released to allow the gates to swing an additional ninety degrees. A proposed latch design (**Figure 3**) was developed that includes two strike plates with a hole in each to secure the latch pin when the gate is closed.

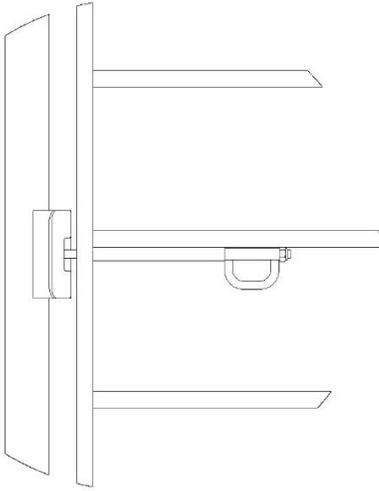


Figure 3. Gate with proposed latch.

Adequate penning allows all cattle to be held in one pen after they have been sorted.

Narrower, dedicated cattle-handling aisles with remote-controlled gates would reduce direct contact between workers and cattle. Man-guards are used in sales rings and could also be used in the aisles to protect the handlers

Equipment, such as skid steers, could be used to move unruly animals. Having more than one scale would reduce handling. The facility should be well lit as cattle do not like to move into shadowed areas.

Administrative Controls

Low-stress handling techniques training is an effective method to improve worker safety. The Livestock Marketers of Saskatchewan has a manual and videos available to train employees.

A train-the-trainer program and weekly ‘toolbox’ meetings are also useful practices.

Employing experienced cattle handlers result in fewer training hours and accidents.

Each facility should have a written, current safety program.

Personal Protective Equipment

Basic PPE, like gloves and steel-toed boots, are effective at preventing many minor injuries; however, excessive PPE may not be the correct approach if it restricts movement and inhibits the function of the workers.

Conclusions

PAMI has developed and compiled a list of preventative measures. Each facility will typically have very unique features, so they will need to select the optimum measures for their facility from the list. Industry could also benefit from regularly sharing best practices and monitoring new innovations in their area. A more detailed report will be available soon.