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PRESS RELEASE

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FOR IMMEDIATE RELEASE

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FRONT-END LOADER SAFETY

Don't bypass these basic safety practices.

Unless you're thoroughly familiar with and trained how to use a front-end loader, working around and using one in a feedyard could lead to the serious injury or the death of yourself or a co-worker. In a feedyard, front-end loaders are typically used to reclaim and load grain, fertilizer or other raw materials.

Identifying front-end loader safety principles is one of the aims of Central States Center for Agricultural Safety and Health (CS-CASH). This University of Nebraska Medical Center group (<https://www.unmc.edu/publichealth/feedyard/>) is conducting two research projects (funded by National Institutes of Occupational Safety and Health) that are designed to make a positive impact on the sustainability of cattle feedyards through increased safety and health efforts.

Front-end loaders are a machine with a scoop or bucket on an articulated arm that's positioned at the front of the vehicle. Front-end loaders may have an enclosed cab or a rollbar with a canopy. In some instances, a hydraulic bucket is attached to the front of a tractor and used like a front-end loader.

Front-end loaders are a useful and necessary piece of equipment in many agricultural operations. However, use of these loaders doesn't come without risk.

Serious injuries involving front-end loaders may begin with something as simple leaving a shovel in an area where a front-end loader is working. In one instance, when a feedyard worker left a shovel on the ground and then noticed the loader was likely to run over it, the worker ran to retrieve the shovel, slipped and fell to the ground, and was nearly run over by loader when it was backing up because the operator had no idea he was in that area.

Co-workers who realized the man was in harm's way waved their arms and shouted at the loader operator to stop. Fortunately, the operator did stop and the "near miss" was avoided. A

subsequent inspection of the loader revealed that the backup camera wasn't functioning, which greatly restricted the operator's line of sight.

In this case, the workers immediately notified their supervisor so a Job Safety Analysis could be completed at the feedyard. All the feedyard's employees also completed a review of front-end loader safety practices.

The first step in operating a front-end loader is to thoroughly inspect it each time prior to using it. Had this step been completed in the case study included here, the operator would have been more aware of the issues resulting from the faulty backup camera. In addition, there may have been an option to use a different loader that was functioning properly.

A pre-use inspection should include:

- Checking tires for proper air pressure and condition.
- Rollover protection system or ROPS to ensure it is in place and has no cracks or damage.
- Hydraulic and oil lines to make sure they are not leaking.
- Bucket to make sure it is properly secured.
- Make sure the cab is clean w/no debris or materials on the floorboard.
- Operate the controls to make sure they are working correctly.
- Check the brakes to make sure they engage properly.
- Check the lift and bucket controls to make sure they are operational.
- Hand and footholds to ensure they are in good condition and free of buildup from ice snow or other materials.
- Clean windows whenever they impact visibility.

Additional safety features that need to be inspected include lights, horn, back-up alarm, back-up camera (if applicable), fire-extinguisher, seatbelt, and mirrors.

In all cases, a front-end loader operator must be at least 18 years of age. In any situation, especially a feedyard, only workers who have been trained and authorized should operate a loader. This step was also bypassed in the previous case.

A JSA also revealed that workers in the immediate vicinity of the front-end loader were not trained on the hazards associated with working in close proximity to this type of equipment.

Each year, many feedyard workers are injured mounting or dismounting mobile equipment. When mounting or dismounting a loader, make sure to face the machine and use the hand footholds provided. Keep hands free to firmly grip the handholds and make sure boots are free of any buildup that could cause a slip.

Once inside the loader, operators should always secure the seatbelt. When dismounting from the loader, do so keeping three points of contact with one foot at a time. Avoid jumping from the equipment, which can lead to slips and falls.

Several pinch points are found on the loader's articulating arm and the bucket's pivot points. Make sure workers remain clear of the loader when raising, lowering or tilting the bucket.

Never use the bucket as a work platform. Elevating workers in the loader bucket is very dangerous. To avoid injury from a falling loader bucket, don't walk under a raised loader. Lower the bucket to the ground while it's parked.

Loaders should always be operated in a well-ventilated area because they can emit carbon monoxide through incomplete combustion. Carbon monoxide is odorless and colorless. This invisible threat can build up in an enclosed area such as a maintenance shop, warehouse, large

tank, and other types of enclosed buildings or structures. When breathed in, carbon monoxide displaces oxygen in the blood and deprives the heart, brain and other vital organs of oxygen. Symptoms of carbon monoxide exposure include dizziness, headache and nausea.

The rated capacity of a loader bucket is found on the machine's nameplate or in the operator's manual. Lifting loads heavier than the rated capacity can cause the loader to become unstable.

Operating with a loaded bucket in the up position can decrease stability and shift the loader's center of gravity, which may cause the loader to tip over.

To maintain maximum stability, avoid driving in areas with ditches, culverts, or uneven grades. If you must drive on an uneven grade, go straight up and down the grade, keeping the bucket in front of the loader.

Before working in an area, identify any overhead obstructions, including trusses, door headers and power lines. To prevent electrocution, always treat all overhead power lines and communication cables as energized. Always maintain at least 10 feet (3 meters) of clearance from overhead lines.

If the loader make contact with electrical power lines, stay in the cab and slowly back away from the lines. Make sure workers on the ground don't make contact with the loader. Doing so gives the electric current a pathway to the ground, which could seriously injure or kill the worker.

Additional safety guidelines:

- Only use the loader for its intended purpose.
- Never allow workers to stand under the raised arms or bucket.
- Never move a load over workers or drivers in the immediate area.
- Be aware of people working in close proximity to the equipment.
- Always stop and look both directions before crossing driveways, roads and railroad tracks.

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