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UNIVERSITY OF WISCONSIN-MADISON

NON-ENCLOSED MANURE STORAGE SAFETY TIPS

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Injuries and fatalities occur in confined space manure storages that are enclosed, such as beneath animal quarters; or below-ground reception and pump out pits; and in non-enclosed earthen, synthetic, or concrete lined manure storages. Non-enclosed manure storages are open to the atmosphere but may meet the definition of a confined space in terms of occupational safety and health based on storage design and employee exposure to hazards.

In the case of non-enclosed manure storage, hazards may include:

- A thick liquid and floating crust that make swimming, buoyancy, or even moving around very difficult.
- Steep and slippery slopes that can make getting out of manure storages difficult or impossible.
- An acceleration of hazardous gases (primarily methane, hy-

drogen sulfide, carbon dioxide, and ammonia) released from manure due to movement, agitation, removal, or addition of manure to storage.

- Localized layers of hazardous gases existing above manure surfaces, especially on hot, humid days with little to no breeze.
- Not having sufficient oxygen to breathe if a person is 'treading' in manure because of inability to get out.
- Not being able to see into depths of manure like you can with clear water.
- A slow response time for adequate emergency actions because of site isolation and remoteness.
- Potentially hazardous equipment in and around the manure storage

Safety guidelines to follow:

- Make sure everyone near manure storage structures understands the hazards that exist, including symptoms and effects that the various manure gases have on their health.
- Explosive gas may settle in pockets near where agitation or pumping is occurring. No smoking, open flames or sparks should be allowed.

- Make sure the non-enclosed manure storage has a fence installed around the perimeter and access gates are locked to keep unauthorized personnel from entering the area.
- Post warning signs including manure drowning hazard signs and “Danger Manure Storage” or “Danger Keep Out,” or “Danger Keep Away.” On all sides of non-enclosed manure storage. If possible, these signs should be located by gates.
- Keep bystanders and non-essential workers away from non-enclosed manure storage during or other accessible areas during when pump out operations are in progress.
- Wear a safety harness with life-line attached to a safely located solid object or anchor at any time you enter the fenced in area of non-enclosed manure storage. If retrieval is needed, this equipment will improve the possibility of a successful rescue.
- Never work alone. The second person’s role is to summon help in an emergency and assist with rescue without entering the manure storage.
- Move slowly around unenclosed manure storages as the ground can sometimes be uneven and may cause a person to trip or stumble.
- Understand equipment being used and have emergency shut-down procedures prepared.
- If equipment malfunctions or maintenance is required during agitating or pumping of the manure, shut all equipment off and remove it from the manure storage before servicing or repairing.
- If you feel unsure or uncomfortable with what you are getting ready to do near the manure storage; wait a moment and reconsider the action, contact a supervisor or farm manager, and review the situation before proceeding.
- Be prepared to call 911 in case of an emergency. Being prepared includes providing specific directions to the site of the emergency, accurately describing the incident, and number of victims.

NATIONAL FARM SAFETY AND HEALTH WEEK

September 19 - 25, 2021

Fall harvest time can be one of the busiest and most dangerous seasons of the year for the agriculture industry. For this reason, the third week of September has been recognized as National Farm Safety and Health Week. National Farm Safety and Health Week is led by the National Education Center for Agricultural Safety (NECAS), the agricultural partner of the National Safety Council.



Daily Topics of Focus

- Monday, September 20, 2021 - Tractor Safety & Rural Roadway Safety
- Tuesday, September 21, 2021 - Overall Farmer Health
- Wednesday, September 22, 2021 - Safety & Health for Youth in Agriculture
- Thursday, September 23, 2021 - Agricultural Fertilizer & Chemical Safety
- Friday, September 24, 2021 - Safety & Health for Women in Agriculture

Find more information and the links to the daily webinars here: <https://www.necasag.org/nationalfarm-safetyandhealthweek/>

2022 AgrAbility National Training Workshop

March 14-17

Madison Concourse Hotel
Madison, WI

Assistive Technology Spotlight: Combine and Tractor Ladder

AgrAbility of Wisconsin often discusses adding lower steps to tractors and combines as way to climb the machine more easily to access the operator's station. At times, the concern is lowering the steps to the point they are at risk for hitting the ground when moving the machine over uneven surfaces.

It is possible to add bottom steps in conjunction with an actuator that would fold the steps away from the ground when seating in the operator's station and then fold the steps back down when ready to exit the machine. The image in the picture below is from Henderson combine ladders who manufacture this device.



OPERATING AND TRANSPORTING FORAGE WAGONS

Agricultural Safety & Health, UW Division of Extension

- Always use a locking hitch pin. A safety chain is strongly recommended for road travel.
- Shields on PTO drivelines and other moving parts must be maintained in good condition.
- Never enter an operating forage wagon to clean or service it. Gruesome entanglements have resulted.
- Prior to transport, secure the PTO driveline in the transport position. Raise and secure the cross conveyor extension if so equipped.
- Forage wagons should always have a clean, bright SMV emblem for road transport, day or night.
- During hours of darkness, they must have two red reflectors or lights. Lights and flashers on wagons are highly recommended.
- Allow no extra riders on tractor, draw-bar, or wagon.
- For safer stops with loads, equip running gear with brakes, particularly for hill and road transport.
- Towed loads without brakes should not exceed 1.5 times the weight of the tractor for road transport.
- When making turns during highway travel, be aware of other vehicles in front and to the rear.
- While traveling on highways, pull off the road safely to allow other vehicles to pass and prevent long lines of vehicles.





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Farm Service Agency Programs

The U.S. Department of Agriculture's Farm Service Agency (FSA) offers direct and guaranteed loans to farmers and ranchers to promote, build and sustain family farms for a thriving agricultural economy.

Farm ownership, operating, and emergency loans are available under the Direct Loan Program. Farm ownership, operating, and conservation loans are available under the Guaranteed Loan Program. FSA offers two types of guarantees under the Land Contract Guarantee Program.

The goal of FSA's farm loan programs is to help farmers and ranchers obtain commercial credit.

To learn more about FSA and their programs reach out to anyone on our team.



Are you interested in
learning more about
FSA loan programs?

We can help.