

2021

## PRESS RELEASE

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### FOR IMMEDIATE RELEASE

*By UNMC, Central States Center for Agricultural Safety and Health, Omaha, NE*

**REMEMBER: LOOK UP**

***Your Life Depends on Power Line Safety***

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Anyone on the farm who works with tractors with front end loaders, portable grain augers, oversized wagons, fold-up cultivators, large combines, irrigation pipe and other tall equipment should take extra caution to avoid electrocution by accidentally coming into contact with overhead power lines.

Identifying overhead power line 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.

Electrocution occurs when a path to the ground is created for the electrical current. If a human body touches a power source or comes into contact with a ripple effect from a downed power line, electricity will attempt to travel through the body. The result can be serious injury or death.

Each year, 62 farm workers are electrocuted and 3.6% of deaths among youth under the age of 20 are caused by

electrocution. Among the types of electrocution accidents that have occurred include incidents such as workers lifting 30-foot aluminum irrigation pipes to a horizontal position under high-voltage lines and moving a portable grain auger just far enough to come into contact with overhead power lines.

“The Department of Occupational Safety and Health (DOSH) stipulates that irrigation pipe cannot be stored within 100 feet of overhead power lines,” Aaron Yoder, University of Nebraska-Lincoln Associate Professor, Biological Systems Engineering, UNL, and University of Nebraska Medical Center Associate Professor, Environmental, Agricultural and Occupational Health, says. “All equipment and irrigation water streams must be kept at least 10 feet away from high-power voltage lines.”

All overhead power lines should be treated as though they are deadly. Farmers and farm workers should always check to see how close power lines are to their work area. Keep equipment and operators at least 10 feet from overhead power lines. Using a spotter to warn equipment operators of close proximity of a power line can help reduce electrocution potential.

When working with irrigation, be aware that water conducts electricity. Be exceptionally careful when operating sprayers, planters and cultivators. Know the height and width of your farm equipment to help prevent accidental contact.

“Keep in mind that not all power lines are located overhead,” Yoder says. “Call 811 to locate any underground power lines before digging in an area.”

When transporting equipment, determine ahead of time the clearance height for farm equipment. Ask your utility company for line heights. Never attempt to measure them yourself. Whenever possible, use pre-planned routes that avoid power lines during equipment transport. On farm equipment that features parts capable of vertical, lateral or swing motion, install a durable sign, legible from a distance of 12 feet that reads: “Unlawful to operate this equipment within 10 feet of high voltage lines.”

When power lines are down, it’s not possible to determine if the line is live just by observation. Because electricity always seeks the easiest and shortest path to the ground, it’s possible to be electrocuted just by coming too close to a downed wire.

“Electricity will jump, or arc, from power lines to any object that touches the ground and can conduct electricity,” Yoder says. “When conditions are right, nearly any object has potential to conduct electricity. If that object is wet, the chance for arcing increases.”

If a power line falls across or near machinery while it's being operated, DO NOT attempt to exit the equipment. Immediately call 911. If any bystanders are present, they must stay away from the equipment.

"If it's necessary to get out of the equipment, jump as far as possible from the equipment, making sure no part of your body comes in contact with the equipment when you land," Yoder says. "Keep both feet together, as if they were bound, and shuffle or hop at least 40 feet away from the equipment."

If equipment hits a utility pole, the surrounding area may become energized. In this case, the safest place is inside the equipment cab or on the equipment. Even if you don't touch a downed power line, stray voltage could result in electrocution.

"If you're transporting equipment and come across a downed power line, stay in or on the equipment," Yoder says. "The ground may be electrified. If you have a phone with you, call 911. If you don't have a phone, stay with your equipment. The power company will come to the location to check on the power disruption."

Never attempt to pull equipment away from a power line or pole. Doing so will cause more damage to the line and increase the risk of electrocution.

If fire breaks out after hitting a power line, it's necessary to quickly and safely escape the vehicle/equipment. To safely do so, don't allow any part of your body to touch the equipment and the ground at the same time. Use these steps to safely move away from the vehicle/equipment:

- Stay seated and open the door completely, looking around to ensure no wires are exposed.
- Stand in the door frame with feet together and arms crossed.
- As carefully as possible, jump as far as possible from the vehicle, keeping feet together and arms crossed.
- Keeping your feet together helps prevent electricity from flowing through one foot to the other, causing serious injury or death.
- Feet together, hop at least 33 feet (approximately 33 hops) from the site of the accident, then slowly slide your feet apart. If there's a sensation of tingling in your feet, hop further away. If hopping isn't possible, shuffle your feet slowly, keeping both feet on the ground at all times. The farther you move away from the power source, the voltage will diminish.

- Immediately contact 911 or the power company.

After moving away from the vehicle/equipment, never attempt to get back on it or touch it. Doing so could result in electrocution.

When conditions are right, any object – soil, branches, even straw – could become energized. Never touch anything the downed line is touching, especially anything metal.

Anyone in the area of a downed power line or damaged electrical pole is in danger of electrocution because electricity can travel from a vehicle/equipment to the ground. Never run toward a vehicle after witnessing an accident involving power lines. Instead, call 911 and/or the power company for help.

“If someone comes in contact with an energized wire or power line, don’t touch the victim until you’re absolutely certain the power has been turned off,” Yoder says. “Otherwise, you can become a victim of the electrical current, too.”

If a device is the source of electrical power, unplug it or cut the power at the service panel. Once the power has been shut off, call for emergency assistance. If the victim isn’t breathing, administer CPR. Loosen the victim’s clothing, keep them in a horizontal position and keep them warm. Only a medical professional should treat any burns that occur.

“Never use ladders around power lines and keep in mind that some equipment may have a higher profile during transport,” Yoder says. “Train all workers on how to safely work around power lines, including those who are part-time or seasonal. Regularly review all the safety measures with all workers, and make sure everyone is aware of any electrocution risks related to the work being done. Electrocution is one of the most overlooked hazards of farm work.”

***Funding for this educational article comes from the Central States Center for Agricultural Safety and Health and the University of Nebraska Medical Center.***