

Safety Advice for Arkansas Producers During the COVID-19 Pandemic and Throughout the Year

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Introduction

The National Institute for Occupational Safety and Health (NIOSH) reported that farm-related activities pose some of the most significant dangers and hazardous practices in the United States. In 2017, 581 farm employees died from a work-related injury, resulting in a fatality rate of 23.0 deaths per 100,000 employees, which is about double that of the mining industry and 1.5 times that of the transportation and warehousing industries.

According to the U.S. Centers for Disease Control and Prevention, there were 58,385 adult farm injuries in 2014. Farmers are at severe risk for nonfatal and fatal injuries due to the nature of farm-related work. Specific field hazards trigger many injuries and fatalities related to farm work. The COVID-19 pandemic increases those risks significantly, and producers and farm workers should pay extra attention to their safety and health.

This fact sheet provides safety advice related to viral infection prevention for farm workers. It also presents tips on updating on-farm safety plans in ways that might help minimize hazards. These tips, while not all-inclusive, should be reviewed before performing farm activities.

General On-farm Precautions Related to COVID-19

There are a few questions to consider in relation to COVID-19 to minimize risk for those who run farm tractors, trucks and other agricultural equipment – primarily when the same machine function is being performed repeatedly by various operators.

COVID-19 spreads quickly from direct person-to-person contact. However, it is not thought to be conveyed over significant distances outdoors. Health specialists still believe that the transmission risk is meaningfully reduced if people working outdoors stay more than six feet apart. If a producer is running a tractor or other machine as the sole operator, out in the middle of farm ground, and is in good health, he or she is at low risk of exposure to the virus (Figure 1).

At some point, however, most operators will come in contact with visitors, agricultural service personnel, hired employees and others.



Figure 1. A producer is driving his tractor alone and avoiding COVID-19.

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An individual infected with COVID-19 can spread the virus to others, even if he or she has no symptoms (this is known as an “asymptomatic carrier”).

While coming into any close contact with an infected person increases the likelihood of contagion, the chances of spread are higher in confined spaces – for example, sharing the cab of a tractor, when things are busy.

The virus may also be spread if workers exchange or use the same equipment without taking the time to properly sanitize the equipment between use by one worker and the next.

Below are some basic safety practices that producers and other agricultural specialists can observe to reduce the level of risk that occurs by sharing equipment:

- Start every workday or shift with clean and laundered clothing. Wash clothes in a washing machine using laundry detergent and dry them with heated air to get rid of the virus. Use warm or hot water for the best sanitizing effect.
- Disinfect hands with hand sanitizers and use gloves when possible. It will assist in killing or reducing interaction with the virus. Nothing works better than handwashing with soap and warm water, scrubbing hands thoroughly for at least 20 seconds.
- Limit contact with others by working remotely from home or other work locations as much as possible, using telephone, text messaging or email.
- Minimize contact with visitors. If producers must spend time in direct contact with nonfamily members, they should maintain at least a six-foot distance and wear a mask.
- Leave the cab windows/doors open whenever possible. Keep them open as long as the machine is parked in a secure location. The wind blowing through the cab will assist in clearing and cleaning the air in the cab.
- Consider changing cab air filters more frequently – most air handling devices are bringing in and filtering outside air. While there are no known risks about these filters spreading viruses, air movement in the cab during the process is essential, and a clean filter will help ensure maximum airflow and relief for the worker.
- Learn about the symptoms of COVID-19. Do not allow workers to enter the farm if they are sick. Also, do not allow them to come to work if they were exposed to others (including family members) who contracted the virus over the last 14-plus days.
- Exposure to ultraviolet light has been shown to reduce virus viability.

Have a Plan to Reduce On-Farm Hazards

Farm owners and producers should update their plan to reduce work hazards to include COVID-19 prevention guidelines. Here are a few guidelines to help farmers reduce risks:

- If workers or visitors experience flu-like symptoms, such as fever, cough, runny nose, sore throat or tiredness, ask them to refrain from being on your farm.
- Ask workers and visitors to bring their masks and keep the mask on at all times. Alternatively, provide disposable masks at the entry of the farm.
- Ask workers and visitors to fill out a health questionnaire to ascertain any health issues related to easily transmitted diseases.
- Use an infrared thermometer to check the temperature of workers and visitors regularly.
- Upon entry to the farm, ask workers and visitors to wash hands with warm water and soap for at least 20 seconds and then to use hand sanitizer.
- Make sure there is enough space for every worker or visitor to keep at least a minimum of 6 feet from the next closest person.
- Do not shake hands during the pandemic. Minimize gathering with others who are not family members.
- Identify weaknesses in the farming operation, and seek remedies.
- Set long-range goals to reduce hazards while finding safer behaviors to finish routine tasks.
- Evaluate the likelihood of potential severe accidents.
- Make sure that coworkers know if and where an employee is working alone (if a person must work alone), and that regular contact is made with that person.
- Train everyone on contacting the manager immediately about any safety concerns.
- Get help to resolve any hazardous situation immediately.
- Develop a simple plan that farmers can follow to minimize these hazard exposures.

On-Farm Safety Tips

Employee safety is regulated by the Occupational Safety and Health Administration (OSHA) criteria. Farms with 11 or more workers are required to meet all OSHA labor regulations. All farmers, however, are required to fulfill these criteria. Below is a list of instructions that might help farmers, ranchers and farm owners to be safe while performing farm-related work.

Tips related to farm machinery safety

- Be mindful while transporting equipment on public roadways.
- Do not operate combines or other farm equipment when the operator is tired, irritated, in a hurry or susceptible to judgment lapses.
- Do not work under hydraulic lifts, mowers, or toolbars without sturdy supports. If supports are not robust, stable, and at the proper height when disconnecting an implement, then the difficulty is likely when hitching the next time. Fix the safety locks on the lift cylinders before working beneath a combine header.
- Use proper hitch support to prevent an unsafe hitching incident. Align the hitch and lift pins to avoid knocking it off the support. The toolbar or hitch may drop and crush someone's foot or leg.
- Make sure that all tractors have a roll-over protective structure (ROPS).
- Do not move equipment until you see that everyone is out of danger. Jump-starting a tractor in gear is a common reason farmworkers have been run over.
- Use hand signals if both individuals understand the meaning of a hand movement in advance.
- Use transmission interlocks to prevent tractors from starting in gear. A victim has no time to escape from a tractor, which is left in gear before the engine builds pressure, and the tractor rolls over the worker.
- Do not drive a tractor, sprayer, or combine too fast – these conditions cause many overturns. Turning too short can cause an overturn. Miscalculating the distance from the edge of an embankment can cause a severe problem, because the bank may crumble under the weight of the tractor or implement.
- Add guards or safety shields to moving parts, such as PTOs, belts, pulleys and augers, as well as all other moving parts of agricultural machinery.
- Mount large implement tires within a protective cage. Accidents while inflating tires can maim or kill.

Tips related to farm electric wiring safety

- Request raising the power lines in case equipment or other traffic cannot maintain the 10-foot gap under the power line.
- Follow the National Electric Code standard by grounding the shop electrical service entrance with an eight-foot ground rod. Connect all ground wire leads, including the extra grounding plug on power cords, to reduce the risk of electrocution when a short occurs.
- Connect a ground wire to generators, electric-powered pressure washers and hand tools, such as drills, angle grinders and welders.
- Be aware that grinders, drills and other electrical tools bouncing around in a truck toolbox can develop electrical shorts.
- Carry a lock with key and tag when working with equipment powered by electricity.

- Disconnect the power supply and lock the “off” switch before starting electrical work. If the farmer is interrupted or is not visible from the switch box, this key prevents someone else from re-connecting the electricity.
- Remove the lock from the circuit control switch lever only after completing the work. Always use the heel of your left hand to throw lever switches and turn your face away as you move the control to minimize flash-fire burns.
- Use electric tools on dry soils or dry concrete to reduce the potential of a fatal current surge passing through the farmer's body.
- Keep work areas neat and free of hose or electrical cord loops, which could pose trip hazards.

Tips related to farm housekeeping safety

- Use proper work platforms or sturdy ladders to prevent falling when working at heights on buildings, combines grain bins, etc.
- Be careful about vibration and excessive noise. Whenever noise prevents the farmer from hearing someone, stop the engine.
- Keep the label and Material Safety Data Sheet (MSDS) readily accessible so that they can be referred to in case of an emergency.
- Post the phone numbers of the local emergency medical technician, ambulance, fire department and poison control center on every permanent phone and program them on “speed dial.”
- Train everyone on the farm to call the emergency rescue should an accident occur.
- Be prepared to use fire extinguishers on tractors and combines to protect people and equipment.
- Replace any fire extinguisher if it is 10 years old unless it exceeds requirements in a thorough test.
- Place a slow-moving vehicle (SMV) emblem on any mobile equipment.
- Report any accident within eight hours if the farm is under OSHA jurisdiction. OSHA defined a reportable incident as hospitalization of three or more employees in one accident or the death of one or more employees.
- Have someone on the farm with Cardiopulmonary Resuscitation (CPR) training and certification.
- Warn agricultural aviation pilots of any risks that the farm owner is aware of to help them be better prepared. If a field has significant hazards for aerial applications, consider whether ground equipment may be more appropriate.
- Communicate and cooperate with another person when hitching heavy toolbars or towed equipment safely. Make sure hand signals are not misleading before moving the tractor to align the connection.
- Place some readily visible markers around risers and control weeds, so the marker is readily noticeable

to attentive drivers. Anchor guy wires from power poles positioned close to fields. Putting some robust protection around guy wires for power poles is a good idea to help prevent clipping or dislodging them with field equipment.

- Report any incidents to OSHA Washington, D.C., phone number 1-800-321-6742, which is available 24 hours per day or to the OSHA office in Little Rock during working hours at 501-224-1841, extension 226.
- Follow the federal regulations by prohibiting anyone or any equipment from coming within 10 feet of an overhead power line.
- Call a professional tire service company if the appropriate equipment to handle tires installation safely is not available.

Tips related to farm housekeeping safety

- Read the label thoroughly when applying products like herbicides, insecticides, or fungicides. Do not overlook precautionary statements, such as those urging farmers to wear long sleeves or goggles.
- Measure cadmium concentration in employee blood and urine.
- Use dry chemical all-purpose extinguishers for tractors and combines.
- Fill washout holes and use erosion control methods to prevent large washouts under discharge pipes.
- Read pesticide labels for proper use, mixing, and disposal. Applicable personal protective equipment is defined on the label.
- Follow the right to know the rule by communicating hazards. If a farmer is an employer and stores diesel fuel, pesticides, or other chemicals in their facilities, then stickers, MSDS information material, emergency drill procedures, and a written Hazard Communication Programs are required.
- Note that regulations change periodically, so for the most current information, please use the following website: <https://www.osha.gov/index.html>.

Grain Handling Safety

Flowing grain and entanglement are the top causes of fatalities in grain handling facilities. Entanglement from moving power take-offs (PTOs), augers, fans, gears, blades, belts, and pulleys can severely injure, disfigure, cause amputations to or kill workers. Flowing grain, on the other hand, is the number one cause of death for grain handlers. It is nearly impossible for a grain handler to escape if they are trapped in a grain bin. If a grain handler is caught in a grain flow, he or she can be engulfed in a few seconds, which may lead to suffocation.

Tragically, the ratio of fatal cases to the total ranged between 36.7-58.3 percent. The majority of these cases are related to entrapment or engulfment in free-flowing grain. Other incidents were linked to machinery

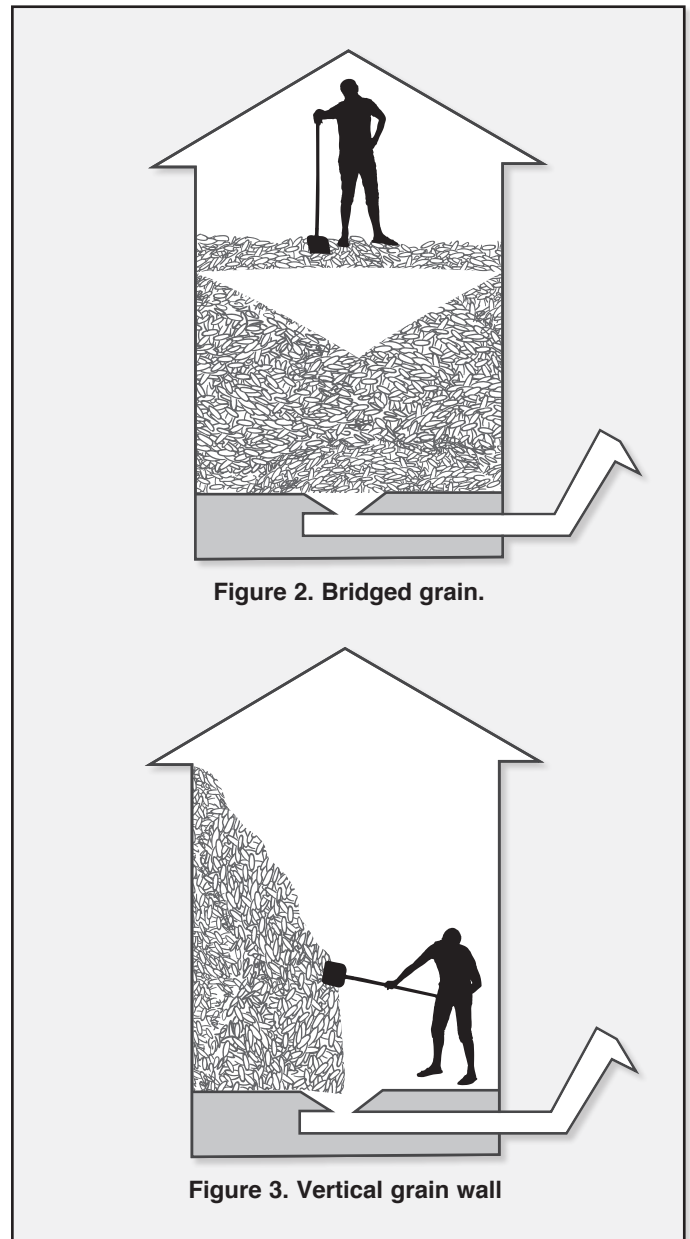


Figure 2. Bridged grain.

Figure 3. Vertical grain wall

entanglement inside grain storage facilities or from asphyxiation due to a toxic atmosphere in partially closed storage structures. Most entrapments suffered from grain handlers who have entered bins, and silos resulted from ignoring one or more of the OSHA safety protocols. Following is a few steps that might help workers avoid common grain handling hazards:

- Wear personal protective equipment while handling grains.
- Follow proper safety procedures.
- Stop the flow of grain and stop the augers before entering the bin.
- Make sure there is no bridged grain in the bin, which is typically formed beneath spoiled grain (Figure 2).
- Be careful while breaking a vertical grain wall (Figure 3).

- Avoid entering a bin with flowing grain. If a grain-probe or shovel has fallen in a grain bin, the flow of grain should be stopped first before taking any action to retrieve the lost item.
- Be aware of the grain bin characteristics before entering. Workers need to get help if the grain surface appears moldy or caked. Grain handlers should strike the grain surface hard with a pole or long-handled tool before entry to avoid falling into a crusted layer.
- Wear a body harness that is tethered to a lifeline and observed by at least two individuals standing outside the bin; one of them should be able to see the grain handler inside the bin.
- Do not enter any grain bin before lockout/tag-out power equipment. It would be good practice for the grain handler to post a sign on the control box.
- Lock the control gate to retain it closed if a bin is unloaded by gravity flow.
- Be able to use arranged arm and hand signals due to difficulty hearing when grain handling or drying equipment is operating nearby.
- Consider all preventative safety procedures, which include suitable ladders and scaffolds.
- Prepare an appropriate breathing apparatus if the victim has been unable to get sufficient oxygen or has been breathing air containing grain toxins.
- Rescue the victim who was entrapped or engulfed in a grain bin without endangering another person.

Respiratory Hazards Related to Agricultural Work

Airborne mold spores can enter the grain handler's bodies through the nose and mouth, irritating lung tissue, and in some people triggering reactions so severe that hospitalization is necessary. A small amount of spoiled grain can produce millions of tiny mold spores, which quickly become airborne when disturbed. Here are a few safety tips that may help minimize respiratory hazards:

- Use respiratory protection inside a bin or other grain storage facility in which moldy grain is present to protect workers from mold reactions.
- Use an appropriate respirator when handling any grain where mold damage is present.
- Change clothing after exposure to high concentrations of mold spores (or use disposable overalls) to elude carrying the mold spores home and exposing family members to mold. This applies to truckers, scale operators, and those supervising the dumping operations.
- Consult a physician and make him or her aware of the farmer's activities if the farmer became ill after exposure to the moldy grain.

Summary

In many circumstances, equipment is not the fundamental cause of an accident. A single thoughtless action can make the farmer a victim. Never get in a hurry. Plan to ensure there is enough time to do the job safely and adequately. Always wear a mask and keep a social distance from others. Wash hands thoroughly and sanitize them regularly. The above recommendations are a start to help manage hazards and avoid injury. These safety steps are not all-inclusive. Please review farm safety plans and inspect farm worksites to decrease potential dangers.

A grower's management is the key to influencing workers and other individuals on the farm. Employees must be informed that working safely is expected for their welfare as well as that of their coworkers. During the non-crop season, it is wise to make a careful hazard inspection. Review the previous season's actions and field records with your team to convey to mind hazards or incidents, especially considering situations when someone narrowly evaded injury. Making the above changes may save someone's life, possibly your own.

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