



Employee and Equipment Safety

Purpose: To ensure all Soil Conservation District employees, full time or seasonal, are properly informed of safety procedures to maintain a safe work environment.

Safety into Practice: Hiring seasonal help is often a necessity for districts trying to provide services to their residents. This work can be intense for short periods of time. A temporary hire may not be familiar with safe operating procedures. This increases the importance of diligent management.

Most farmworker injuries and deaths are caused by tractor incidents such as overturns, runovers, power take-off (PTO) systems, and unintended contact with tractor attachments or implements. Employers are responsible to ensuring safe work environments for every worker.

General Safety Precautions:

- Inspect and review
- Safety checks
- Be aware
- Children
- Indoor safety precautions
- Highway safety

Tractor Operating Training: Districts that provide tractor operator training can aid in reducing tractor incidents. Managers should train tractor operators to:

- Comply with the tractor's operating instructions
- Allow no riders unless the tractor is manufactured with a seat and seat belt for each rider
- Set the brakes and hand brake, if available, when the tractor is stopped for more than a few minutes.
- Ensure that the operators have the knowledge, experience, and capabilities to operate the tractor.

Emergency Planning and Preparedness: Many injuries in the agriculture field occur far from hospitals and emergency medical facilities. Most employees don't have the training or the capability to treat these injuries. Because most treatment facilities are not located within a reasonable amount of distance or time, soil conservation districts should consider:

- Develop an emergency action plan that addresses all likely hazards
- Designate an emergency staging area for the field or the office
- Train tractor drivers on how to respond in emergency situations
- Ensure each tractor has a first-aid kit and a working fire extinguisher

Workers' Rights: All employees of the Soil Conservation District have the rights to:

- Working conditions that do not pose a risk of serious harm
- Receive information and training about hazards
- Review records of work-related injuries or illnesses
- File a complaint asking OSHA to inspect their workplace in a confidential manner
- Exercise their rights under the law without retaliation.

For additional information please see; <http://library.nd.gov/statedocs/UGPTI/AgHandbook20110909.pdf>

Discussion Questions:

1. What policies does your district have in place to ensure seasonal employee safety around district equipment?
2. ND Ag Safety Guidelines
3. Has your district developed an emergency action plan? If so, when was it last reviewed? If not, what reasons does your board have for not creating one?

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Backing Up Farm Vehicles and Equipment Safely

Backing up farm equipment and vehicles is a challenging and dangerous task that can cause serious injury or even death to farmworkers.



Employers and supervisors should provide farmworkers with:

- Information to recognize hazards
- Vehicles and equipment that operate properly (horns, four-way flashers, backup alarms, mirrors, sensors and cameras)
- Training to operate equipment safely
- Training to inspect their farm vehicles and surroundings before driving and after breaks to see if the area is clear.

To Prevent Runovers, Train Workers to:

- Keep mirrors and cab windows clean.
- Roll down windows and open vehicle's doors to hear shouts.
- Know the vehicle's blind spots — mirrors never show the entire view.
- Have another worker assist the driver to back up.
- Never rest or sleep near farm vehicles.
- Limit walking or working behind vehicles.
- Drive forward instead of backing up, even though it takes more time.
- Look out for/alert other workers when farm vehicles and equipment are nearby.

Vehicle Safety

- Ensure that workers understand and use hand signals (not verbal commands) when noise or distance is involved. (See [ASABE/E19](#)).
- Never assume that the driver can see other workers.
- When in doubt, don't back up!

For more information:



U.S. Department of Labor



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www.osha.gov (800) 321-OSHA (6742)

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Retrocediendo los vehículos de agrícola y seguridad con equipo

Retrocediendo equipo agrícola y los vehículos es una tarea difícil y peligrosa que puede causar lesiones severas o aún la muerte de los trabajadores agrícolas.

Los empleadores y supervisores deben proporcionar los trabajadores de agrícola con:



- Información para reconocer peligros
- Vehículos y equipo que operan adecuadamente (cláxones, luces intermitentes, alarmas de retroceder, espejos, sensores y cámaras)
- Adiestramiento para operar el equipo sin peligro
- Adiestramiento para inspeccionar sus vehículos de agrícola y entorno antes de manejar y después de descansos para asegurar que el área esté libre.

Para prevenir vuelcos, adiestre a los trabajadores a:

- Mantener limpios los espejos y ventanas de la cabina.
- Bajar las ventanas y abrir las puertas del vehículo para escuchar gritos.
- Saber los puntos ciegos del vehículo — las ventanas nunca muestran la vista completa.
- Pedir ayuda de otro trabajador para retroceder.
- Nunca descansar o dormir cerca de los vehículos agrícolas.
- Manejar hacia adelante en vez de retroceder, aunque toma más tiempo.
- Ser consciente de y avisar otros trabajadores cuando los vehículos agrícolas y equipo están cerca.

Seguridad de vehículos

- Asegure que los trabajadores entiendan y usen señales de mano (no órdenes verbales) cuando hay ruido o largas distancias. (También véase [ASABE/E19](#)).
- Nunca asuma que el conductor puede ver a los otros trabajadores.
- ¡Cuando tiene dudas, no retroceda!

Para más información:



Departamento de Trabajo
de los EE. UU.



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Ocupacional

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Agricultural Safety

Fact Sheet



Preventing Farm Vehicle Backover Incidents

Backing up farm equipment and vehicles is a daily occurrence in the agricultural industry. Backover incidents occur when a backing vehicle strikes a worker who is standing, walking, or kneeling behind that vehicle. These incidents can be prevented. Backover incidents can result in serious injuries or deaths to farmworkers. Employers are responsible for maintaining a safe workplace for every worker. This fact sheet provides employers with information about backover hazards and safety measures.

Preventing or Minimizing Backover Hazards

Most backover incidents are due to the employer's failure to train vehicle operators and enforce proper backing up techniques and preventive safety measures. Employers should ensure that unnecessary backing up is avoided. In addition, employers should also ensure that both the operator and other workers are always aware of their surroundings. Moreover, employers should develop and require the use of alternate travel routes and backover safety systems, which are effective safeguards to prevent backover incidents.

Hitching Farm Equipment and Implements

Helpers often assist operators in backing up and hitching farm vehicles (e.g., truck or tractor). However, helpers working behind these vehicles risk becoming caught and crushed between the vehicle and the equipment being hitched. Employers should require the use of the following hitching and backing up safety measures.

Hitching operations without a helper:

- Inspect the equipment, including the hydraulic and electrical connections, drawbar hole and hitch pin, and the three-point hitch.
- Ensure that no one is standing or working behind the vehicle.
- If available, use the vehicle backup camera and alarm to ensure that objects are not in the vehicle's path.
- Back up the vehicle slowly to align the hole in the drawbar with the hole in the implement hitch.
- Stop and put the vehicle in park, or lock the brakes.



Farmworkers on foot are at risk of being backed over by a farm vehicle.

- If required, dismount to connect the electrical and hydraulic connections and safety chains.
- Hitch the equipment to the vehicle.
- Release the parking brake/lock, place the vehicle in gear and slowly drive away.

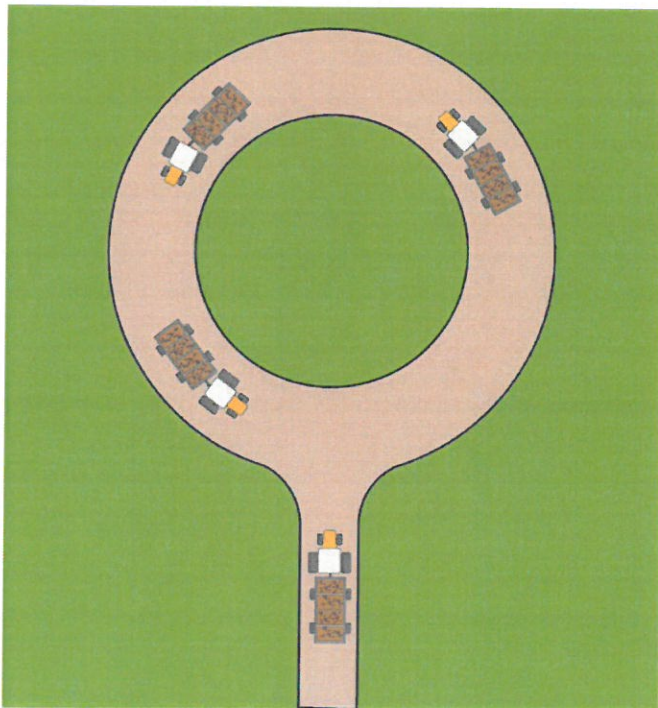
Hitching operations with a helper:

- Inspect the equipment, including the hydraulic and electrical connections, drawbar hole and hitch pin, and the three-point hitch connection if applicable.
- Ensure that coordinated ASABE hand signals are understood and used (see below for coordinated hand signals).
- Back up the vehicle at the slowest speed possible toward the equipment.
- Until the vehicle is stopped, the helper should stand outside the path of the vehicle.

- After the drawbar and equipment are aligned, stop and put the vehicle in park, or lock the brakes.
- Signal the helper that it is safe to approach the vehicle for a close inspection and to prepare for hitching operations.
- If required, attach the electrical and hydraulic connections and safety chains. Move the vehicle forward or backward a few inches, if needed, to allow the helper to drop in the hitch pin.

To prevent backover incidents, employers should:

- Regularly assess each work location to determine if a traffic control plan is needed.
- Establish drive-through or circular turnaround areas. If this is not possible, provide adequate space for operators to perform a three-point turn.
- Ensure that all turnaround areas are level, firm, and well-drained to prevent vehicles from tipping over.
- Determine if a backup camera or system is needed.
- Never allow workers to eat lunch or rest near active working vehicles and equipment.
- Identify where workers might stand or walk unexpectedly.
- Determine if a spotter is required.
- Instruct workers and operators not to use personal mobile phones, headphones or any items that could create a distraction.



A circular turnaround area is the safest way to allow safe entry and exit of farm equipment and vehicles.

Working Conditions

Working at night

The lack of light can increase the operator's blind spots, as well as impair his or her ability to see other workers. Employers should provide sufficient lighting for the worksite and vehicle, and require workers to wear reflectors or high-visibility vests to make them more visible.

Working in bad weather

Bad weather, such as heavy rain, can pose particular hazards to workers and operators. Strong rain can reduce the operator's visibility and make it very difficult to recognize workers and other vehicles that may be nearby. If the workers are at risk due to bad weather, employers should stop the work and ensure that the workers stay clear of moving vehicles until it is safe to return.

Training

Employers should train vehicle operators to:

- Become familiar with backing up hazards and worksite safety measures.
- Back up only when necessary and for as short a distance as possible.
- Check the surrounding area for obstacles, other workers, and equipment.
- Understand the limitations of their vehicles and equipment, and operate them only in the way they were intended to be operated.
- Keep mirrors clean and adjusted properly to minimize blind spots.
- Know the vehicle's blind spots — mirrors never give the entire view.
- Check that backup alarms, sensors, and cameras are functioning properly.
- Look under vehicles and trailers for workers; remember that some workers may not respond to verbal or mechanical warnings.
- Honk the vehicle's horn and turn on the 4-way flashers, if necessary when backing up.
- Roll down cab windows, and if necessary, open the vehicle's doors so that a person shouting can be heard.
- Understand that snow, mud, slush, or ice may prevent sudden stops and cause the vehicle to move in an unexpected manner.
- Understand that bad weather may compromise the operator's ability to hear or see warnings.
- Always back up at a slow speed and watch carefully in all directions.

Employers should train farmworkers on foot to:

- Stand where they can see the vehicle's mirrors whenever possible.
 - Never go between a moving vehicle and any equipment that is hitched or being towed.
 - Never stand or linger in a vehicle's path.
 - Never rest or sleep next to or under an agricultural work vehicle or equipment.
 - Inform other workers when vehicles are approaching.
 - Listen for the vehicle's backup alarm and watch the vehicle's movement.
- Never assume that the vehicle's operator can see them.
 - Never wear earbuds or headphones when working near farm vehicles and equipment.

Using Hand Signals and Spotters

Distance and noise can make voice commands very difficult to hear or understand in some agricultural locations. Agricultural hand signals have been developed for farm machinery operators by the American Society of Agricultural and Biological Engineers (ASABE/E19). Hand signals can prevent accidents and save time. Learning

American Society of Agricultural and Biological Engineers (ASABE/E19) Hand Signals



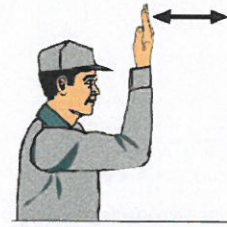
Start the engine. Move arm in a circle at waist level as though you were cranking an engine.



Stop the engine. Move your right arm across your neck from left to right in a "throat-cutting" motion.



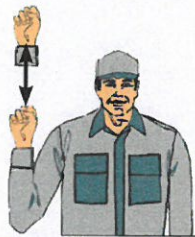
Come to me – may mean "Come help me" in an emergency. Raise arm vertically overhead, palm to the front, and rotate in large horizontal circles.



Move toward me – follow me. Look toward person or vehicle you want moved. Hold one hand in front of you, palm facing you, and move your forearm back and forth.



Move out – take off. Face desired direction of movement. Extend arm straight out behind you, then swing it overhead and forward until it's straight out in front of you with palm down.



Speed it up – increase speed. Raise hand to left shoulder, fist closed. Thrust fist upward to full extent of arm and back to shoulder rapidly several times.



Slow it down – decrease speed. Extend arm horizontally at your side, palm down, and wave arm downward (45 degrees minimum) several times, keeping arm straight. Don't move arm above horizontal.



Raise equipment. Point upward with forefinger while making a circle at head level with your hand.



Lower equipment. Point toward the ground with forefinger of one hand while moving the hand in circular motion.



This far to go. Put hands in front of face, palms facing each other. Move hands together or farther apart to indicate how far to go.



Stop. Raise hand upward, arm fully extended, palm to the front. Hold that position until the signal is understood.

hand signals will give workers and drivers an easy and effective way to communicate. Employers should train and require drivers and spotters to use the ASABE's hand signals in all agricultural operations, especially when noise or distance is a factor.

Vehicle Safety Devices and Warning Systems

Many safety devices and warning systems, including backup alarms, large backup lights, sensors, alarms that beep continuously while the vehicle is in reverse, and rear-view cameras, have come on the market and are now essential components of modern day farm vehicles. Older agricultural farm vehicles may lack these safety devices and systems. Planning ahead, establishing sound safety procedures, and adding safety warning devices to farm vehicles can help prevent backover incidents and injuries.

Workers' Rights

Workers have the right to:

- Working conditions that do not pose a risk of serious harm.
- Receive information and training (in a language and vocabulary the worker understands) about workplace hazards, methods to prevent them, and the OSHA standards that apply to their workplace. Review records of work-related injuries and illnesses.
- File a complaint asking OSHA to inspect their workplace if they believe there is a serious hazard or that their employer is not following OSHA's rules. OSHA will keep all identities confidential.
- Exercise their rights under the law without retaliation, including reporting an injury or raising health and safety concerns with their employer or OSHA. If a worker has been retaliated against for using their rights, they must file a complaint with OSHA as soon as possible, but no later than 30 days.

For additional information, see [OSHA's Workers page](#).

For questions or to get information or advice, to report an emergency, fatality, inpatient hospitalization, amputation, or loss of an eye, to file a confidential complaint, or to request OSHA's free on-site consultation service, contact your nearest OSHA office, visit www.osha.gov, or call OSHA at 1-800-321-OSHA (6742), TTY 1-877-889-5627.

For more information on ATV safety and other issues affecting farmworkers, visit OSHA's Safety and Health Topics Agricultural Operations website at www.osha.gov/dsg/topics/agriculturaloperations.

For assistance, contact us. We can help. It's confidential.



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Agricultural Safety Fact Sheet



Emergency Preparedness for Farmworkers

Farms, like most workplaces, face unexpected emergencies and disasters. Agricultural emergencies and disasters can be natural or man-made. To help lessen the impact of these events, employers and supervisors should develop and exercise an emergency action plan that prepares workers to react to and handle emergencies and disasters before they occur.

What is an Emergency Action Plan (EAP)?

An emergency action plan identifies and organizes employer and worker responsibilities in preparation for and when responding to a workplace emergency or disaster. Having a plan with the employer's support and commitment and workers' participation is key to an orderly evacuation and quick response. Developing and implementing an EAP can lessen confusion, decrease injuries, and limit destruction of property during and after a disaster or other emergency.

Agricultural Emergencies

Natural:

- tornadoes
- hurricanes
- wildfires
- floods
- severe winter storms
- severe dust storms
- lightning strikes
- earthquakes

Man-made:

- wildfires
- explosions or fires
- animal handling incidents
- grain entrapments
- power failures
- rotating and moving equipment incidents (Power take-off shafts, screw conveyors/augers)
- chemical releases or spills
- amputations
- vehicle incidents (turnovers, rollovers)
- workplace violence
- accidental poisoning

How to Prepare an Emergency Action Plan

A well-documented EAP should ensure that emergency response procedures are established for before, during, and after an emergency. The plan should be broad enough to address all types of emergencies or disasters that could possibly occur on the farm. For smaller organizations, the EAP does not need to be written and may be communicated orally. Nevertheless, it is always a good practice to have a written emergency action plan. The best EAPs are customized for your specific farm operations and require time, thought and planning. Include workers and family members in the emergency preparedness planning process to help identify emergency or disaster situations that can impact the farm. The EAP should be revised once shortcomings have become known, and reviewed at least annually. The employer should review the EAP with each worker when:

- A new worker is hired
- The plan is developed
- The worker's workplace responsibilities or designated actions under the plan change.

At a minimum, the EAP should include:

- Emergency escape procedures and routes.
- Procedures to account for workers.
- Procedures for workers who remain on site after the alarm sounds.
- Duties for workers designated to perform rescue and medical functions.
- The preferred means for reporting emergencies.
- Contact(s) for further information or explanation of duties under the plan.

- Possible emergency events, incidents and life-threatening situations.
- Emergency escape routes, shelter-in-place locations, and rally points.
- Floor plans and workplace maps.
- A chain of command to prevent confusion and to coordinate the work.
- Emergency communication equipment, such as two-way radios or a public address system for workers and first responder notification.
- Special equipment needed for emergencies and disaster response.
- Workers' next-of-kin emergency phone numbers and contacts.
- Farm inventory that includes location of livestock, electrical shut-off locations, buildings and structures, and farm machinery/equipment makes and model numbers.
- Needed supplies, such as sandbags, fire extinguishers, gas-powered generators and hand tools.
- If needed, location of primary and secondary areas to relocate farm assets and workers.
- Location of buildings in the vicinity that can be used as a command post or logistical assistance area.

The employer should make workers aware of the potential man-made and natural workplace emergency situations that could have an impact on the farm.

Preplanning with First Responders

Implementing and exercising an emergency action plan should involve working with your local first responders or fire department. Invite them to walk your farm to gather and record important information that could be critical for making life-saving decisions at an incident, such as a grain bin entrapment, fire or natural disaster. Pre-planning allows first responders to become familiar with the following:

- Farm's physical layout, including buildings and other structures. (e.g., grain bins)
- Hazardous chemicals (e.g., pesticides, anhydrous ammonia) and equipment (e.g., augers, PTOs).
- Locations where employees would be if an emergency occurred; important contacts, including daytime and nighttime contact information.
- How utilities (e.g., electric, gas and water) can be controlled.
- Evacuation plans, security, etc.
- Emergency first responder limitations.

Training

Worker training may vary from operation to operation. Some employers set up formal classroom-style training for workers and others work one-on-one with workers. If workers are expected to perform adequately in an emergency, provision must be made for the training of both individuals and teams. Regardless of the training approach, worker training is an important part of a good emergency preparedness plan. Training should be conducted periodically or as needed to maintain workplace preparedness. In addition, training and training materials should be provided to workers in a language that they understand, because some workers may not speak English.

Workers should be trained in the following areas:

- Evacuation plans
- Alarm systems
- Reporting procedures for personnel
- Shutdown procedures
- Types of potential emergencies

Farm Exercises and Drills

Unless the plan is tested, it is difficult to predict all of the problems that may happen. Exercises and drills are excellent tools to minimize these potential problems. Nevertheless, exercises and drills should be conducted annually or as needed to practice all or critical portions (such as evacuation) of the emergency response plan.

After each drill, exercise, or emergency incident, a meeting or review should be held to evaluate what happened, why it happened, and how it can be done better by the employer and worker(s) in the future. Furthermore, post exercise and drill meetings or reviews will identify areas that require improvements.

Medical Service and First Aid

At least one person or persons, in the absence of an infirmary, clinic, or hospital in near proximity to the workplace, should be adequately trained to render first aid. It is also essential that basic first-aid supplies are available. Emergency phone numbers should be posted in visible places, inside farm vehicles, and on telephones.

For more information on first aid, see OSHA's *Best Practices Guide: Fundamentals of a Workplace First-Aid Program* at www.osha.gov/Publications/OSHA3317first-aid.pdf.

Workplace Emergency Response Team

A farm's most valuable asset during the first few minutes of an emergency is a well-trained and disciplined emergency response team. A farm emergency response may be provided by an outside organization, such as the fire department or in some cases, the farm's internal emergency response team. Workers who are members of the emergency response team should be thoroughly trained and physically capable of performing emergency response duties and responsibilities. They should also be knowledgeable about the hazards found on the farm.

Team members should know when to take actions themselves or to wait on outside assistance when an emergency or disaster is too large to handle (i.e., the fire department).

One or more members on the team should be trained in:

- How and when to use various types of fire extinguishers
- First aid, including cardiopulmonary resuscitation (CPR)
- Shutdown procedures
- Chemical spill control procedures
- Emergency rescue procedures

Contractors

Employers should alert contractors about the hazards found in the workplace, particularly regarding the work they are to perform. In any emergency situation, contractors should be able to take appropriate action as part of the EAP.



Photo: iStock

Workers' Rights

Workers have the right to:

- Working conditions that do not pose a risk of serious harm.
- Receive information and training (in a language and vocabulary the worker understands) about workplace hazards, methods to prevent them, and the OSHA standards that apply to their workplace. Review records of work-related injuries and illnesses.
- File a complaint asking OSHA to inspect their workplace if they believe there is a serious hazard or that their employer is not following OSHA's rules. OSHA will keep all identities confidential.
- Exercise their rights under the law without retaliation, including reporting an injury or raising health and safety concerns with their employer or OSHA. If a worker has been retaliated against for using their rights, they must file a complaint with OSHA as soon as possible, but no later than 30 days.

For additional information, see [OSHA's Workers page](#).

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Agricultural Safety Fact Sheet



All-Terrain Vehicle Hazards during Farm Work

All-terrain vehicles (ATVs) are used in agricultural operations to help farmworkers gather livestock, pull trailers and haul small loads, or carry pesticide applicators. ATVs have caused many farm fatalities and injuries. This fact sheet provides practical safety measures that employers and supervisors can take to protect vehicle operators from harmful incidents. Employers are responsible for providing a safe workplace for farmworkers.

ATVs Can Be Dangerous

ATV injuries and fatalities on farms and ranches are widespread and increasing. NIOSH identified 2,090 ATV injuries and 321 ATV fatalities between 2003 and 2011, with three out of five of the occupational deaths occurring in agriculture.



The majority of these ATV incidents result from:

- Loss of control of the vehicle
- ATV rollovers
- Operators being thrown from the vehicle
- ATVs colliding with a tree or other obstacles
- Operators not wearing a helmet or other protective equipment
- Inexperienced operators

Employers need to provide ATVs that have the following features: Motorcycle-type handle bars for steering control; large, low-pressure tires; single worker design; and a seat that can be straddled by the worker.



Photo: CropCare, div of PBZ LLC

ATV accidents from
2003 – 2011



resulted in

2,090



321

injuries

fatalities

**3 out of 5 ATV fatalities occurred
in agriculture.**



ATV Safety Checks

Employers should train operators to perform pre- and post-ride safety checks to ensure that the ATV is operating properly. Pre- and post-ride checks should include inspecting:



- Tires and wheels
- Controls and cables
- Lights and electrical systems
- Oil and fuel
- Chain and/or driveshaft



Training

Employers should train operators on how to operate an ATV safely. The best way to learn to operate an ATV safely is through training and practice.



Employers should:

- Provide training on the ATV owner's manual to each operator.
- Never allow untrained workers to drive an ATV.
- Never allow workers to operate an ATV when tired or impaired.
- Ensure that guards are in place to prevent accidental contact with hot or moving ATV parts.

Employers should train operators to:

- Place the gear in neutral or park, with the parking brake locked before starting the vehicle.
- Never operate an ATV at excessive speeds.
- Maintain a speed that is proper for the terrain, visibility conditions, and the operator's experience level.
- Stay alert near marked and unmarked terrain hazards, such as holes, stumps, ruts, culverts, wires, fences, and large rocks.
- Operate ATVs in accord with the owner's manual and not attempt wheelies, jumps or hazardous stunts.
- Be aware when approaching hills, turns, and other obstacles.

Personal Protective Equipment (PPE)

Employers should provide operators with PPE awareness training prior to allowing an operator to handle an ATV. Even though the moving parts of an ATV are covered, entanglement with moving parts or accidental contact with objects can cause severe injuries.



Employers should:

- Provide head and face protection and protective clothing.
- Ensure that ATV operators always wear proper protective gear or equipment. PPE can reduce the severity of ATV-related incidents.

Employers should train operators to:

- Secure loose bootlaces that can become entangled in a spinning ATV axle.
- Never wear loose clothing that could get caught in passing brush, pulling the operator off the seat.
- Wear helmets/head protection; bicycle helmets do not provide sufficient face and head protection and absorb little energy.
- Wear protective clothing, including gloves, non-skid shoes, goggles, or face shields, long pants and long sleeves.

Load and Weight Considerations

Employers should provide operators with information about the ATV's load and weight limitations. The total weight of the ATV should not go above the manufacturer's limits—this includes the weights of the ATV, the load and the operator. Multiple riders on a single-rider ATV and the improper installation of equipment can have an impact on an ATV's maneuverability.



Employers should train operators to:

- Check tires to ensure that they are fully inflated.
- Never allow multiple riders (unless the ATV is specifically designed for more than one rider).
- Provide attachments and equipment that are appropriate and approved by the manufacturer.
- Keep the ATV well-balanced so that it does not pull to one side.
- Secure tools firmly to the ATV's cargo rack.
- Understand the ATV's trailer loading and pulling procedures.

Crossing Roads and Highways

Serious injuries or fatalities can occur when ATV operators are riding on or crossing roads. Employers who require operators to cross roads and highways should provide training on how to do so safely. Employers should check their state or local laws before allowing ATVs to operate on roads or highways.



Employers should train operators to:

- Stop on the shoulder before crossing. The leader should dismount and watch for traffic as he waves the group across the road.
- Yield the right of way to oncoming traffic and always look both ways.
- Cross roads at a 90 degree angle where there are fewer obstructions and the visibility is good.
- Ride cautiously on roadways; ATVs handle differently on pavement.

Working Alone

Farms are worksites that can be spread out over several acres, where workers could be working alone for long periods of time. Working alone includes all tasks where operators do not have direct contact with the employer or co-workers. This could include herding or tending to animals, maintaining fences or buildings, or tasks in fields. Employers should have check-in procedures in place for these operators.



Employers should know the operators:

- Destination.
- Estimated time of departure and return.
- Contact information.
- Mode of communication (cell phone, hand-held radio, etc.)
- Alternate plans in the event of bad weather, traffic problems, etc.

Workers' Rights

Workers have the right to:

- Working conditions that do not pose a risk of serious harm.
- Receive information and training (in a language and vocabulary the worker understands) about workplace



hazards, methods to prevent them, and the OSHA standards that apply to their workplace.

- Review records of work-related injuries and illnesses.
- File a complaint asking OSHA to inspect their workplace if they believe there is a serious hazard or that their employer is not following OSHA's rules. OSHA will keep all identities confidential.
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For more information on ATV safety and other issues affecting farmworkers, visit OSHA's Safety and Health Topics Agricultural Operations website at www.osha.gov/dsg/topics/agriculturaloperations.

For assistance, contact us. We can help. It's confidential.



U.S. Department of Labor

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Agricultural Safety Fact Sheet



Protecting Agricultural Workers from Tractor Hazards

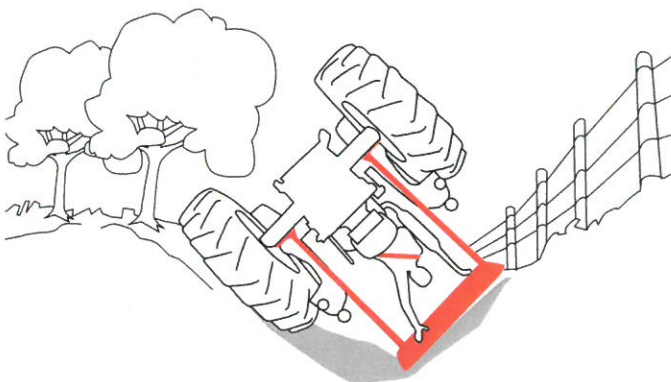
Most farmworker injuries and deaths are caused by tractor incidents such as overturns, runovers, power take-off (PTO) systems, and unintended contact with tractor attachments or implements. Employers are responsible for ensuring a safe work environment for every worker. This fact sheet provides employers with information about these tractor hazards, along with safety measures to protect tractor operators.

Overturns

Tractor overturns are the leading cause of fatalities in the agriculture industry, resulting in approximately 130 deaths per year. The majority of tractor overturn incidents take place when these farm vehicles turn on their side or tip over backward. These overturns come about very quickly, often in seconds, which leaves the operator little or no chance to get clear as the tractor tips or rolls.



When operated properly, tractors are generally quite safe. Tractors that are old, in poor condition, lack safety guards and devices, or are driven in an irregular or risky manner can contribute significantly to unsafe or hazardous conditions.



A roll-over protective structure and a seat belt can protect workers from being crushed by an overturned tractor.

Roll-over Protective Structures (ROPS)

An operator's chances of surviving a tractor overturn without a serious injury are very good if the tractor has a ROPS and the operator is wearing a seat belt. A ROPS is a roll bar or cage frame that is designed to form a zone of protection around the operator if a tractor overturns. To prevent being thrown from a tractor, operators must wear a seat belt.



A qualified dealer can retrofit older tractor models with a ROPS/seat belt system. The National Institute for Occupational Safety and Health (NIOSH) Division of Safety Research and Protective Technology Branch has developed a Cost-Effective Rollover Protective Structure Program (CROPS) for four tractor models that lack commercially available ROPS.

ROPS and Seatbelt Requirements

- Agricultural tractors with over 20 horsepower manufactured after October 25, 1976 are required to have ROPS. (1928.51(b)(1)).
- Each tractor with a ROPS must have a seat belt.
- Ensure that each operator uses a seat belt properly.
- Employers must ensure that each operator tightens their seat belt so that they are confined within the ROPS protective area.



Employers must ensure that tractor operators receive initial and at least annual training on the safe operating practices described below (29 CFR 1928.51(d)):

- Fasten seat belts securely (for tractors with rollover protection).
- Where possible, avoid operating the tractor near ditches, embankments and holes.
- Stay off slopes too steep for safe operation.
- Reduce speed when turning or crossing slopes, and on rough, slick, or muddy surfaces.
- Operate the tractor smoothly, without jerky turns, starts, or stops.
- Be attentive, especially at row ends, on roads, and around trees.

Power Take-Off (PTO) Shafts

A PTO allows farmworkers to use power from the tractor's engine to drive a variety of machines and implements. PTOs are useful, but they can pose a serious safety hazard. Operators and workers have come into contact with unprotected as well as protected PTOs. Employers must protect workers from coming into contact with hazards created by a rotating PTO, and they must inspect the PTO shaft to ensure that the PTO guard is always in place. Employers should replace any missing or damaged PTO guard.

At the time of initial assignment and at least annually thereafter, the employer should train every farmworker in the safe operation and servicing of all equipment with which the operator will be involved, including the following safe operating practices (1928.57(a)(6)(i)):

- All PTOs, including rear, mid- or side-mounted shafts, shall be guarded either by a master shield, or by other protective guarding (1928.57(b)(1)(i)).
- Before servicing, adjusting, cleaning, or unclogging the equipment, stop the engine, disconnect the power source, and wait for the PTO shaft to stop, except when the machine must be running to be properly serviced or maintained. In that case, the employer must train workers on all steps and procedures needed to safely service or maintain the equipment (1928.57(a)(6)(iii)).
- Keep all guards in place when the machine is in operation (1928.57(a)(6)(i)).
- Ensure that everyone nearby is clear of the machine before starting the tractor's engine and engaging the PTO shaft's selector switch (1928.57(b)(6)(iv)). Tie back and tuck in long hair and do not wear loose clothing. A rotating PTO shaft can catch long hair or loose clothing.
- If possible, avoid working alone around PTO-driven machinery. If entanglement occurs, a coworker may be able to stop the PTO shaft in time to prevent more serious injury, or death.



In 34 states, SMV emblems must be displayed on the rear of any tractor and its towed attachment traveling 25 mph or slower.

Tractor Operator Training

Employer-provided tractor operator training can aid in reducing tractor incidents. Employers should train tractor operators to:

- Comply with the tractor's operating instructions.
- Allow no riders, unless the tractor is manufactured with a seat and a seat belt for each rider.
- Hitch only to the draw bar and hitch points.
- Set the brakes and hand brake, if available, when the tractor is stopped for more than a few seconds.
- Ensure that operators have the experience and knowledge to operate the tractor.

Emergency Planning and Preparedness

Many injuries in agriculture occur far from hospitals and emergency medical facilities. Moreover, most employers do not have the training or capability to treat these injuries. Because treatment facilities are not typically located within a reasonable distance or timeframe, employers should:

- Develop an emergency action plan that addresses all likely hazards.
- Designate an emergency staging area for the field or the office.
- Train tractor operators on how to respond to emergency situations.
- Ensure that each tractor has a first-aid kit and a working fire extinguisher.
- Assemble a first-aid kit that is designed to address agricultural injuries and incidents. Agricultural first-aid kits should contain basic medical items such as gauze, splints, ice packs, surgical tape, disposable gloves, eye patches, burn dressings and a first-aid instruction booklet.

- Call local first responders or 911 in case of an emergency. When reporting an emergency, provide your name, location, the nature of the emergency and where the worker(s) can be reached.
- Maintain frequent communication with tractor operators who work alone or in remote areas.

Workers' Rights

Workers have the right to:

- Working conditions that do not pose a risk of serious harm.
- Receive information and training (in a language and vocabulary the worker understands) about workplace



hazards, methods to prevent them, and the OSHA standards that apply to their workplace.

- Review records of work-related injuries and illnesses.
- File a complaint asking OSHA to inspect their workplace if they believe there is a serious hazard or that their employer is not following OSHA's rules. OSHA will keep all identities confidential.
- Exercise their rights under the law without retaliation, including reporting an injury or raising health and safety concerns with their employer or OSHA. If a worker has been retaliated against for using their rights, they must file a complaint with OSHA as soon as possible, but no later than 30 days.

For additional information, see [OSHA's Workers page](#).

General Safety Precautions

- **Inspections and review:** Ensure that operators and workers are thoroughly familiar with farm machinery that may be used for just a few days out of the year. This is especially important with harvesting equipment such as combines and cotton harvesters.
 - **Safety checks:** Conduct preoperational safety checks, review proper operating procedures and ensure that tractor safety decals and stickers are not worn, damaged or removed.
 - **Be aware:** Ensure that operators are familiar with the ground where the tractor will be used. Operators should be aware of ditches, uneven ground, and bystanders in the area.
 - **Children:** Keep children away from tractors and their implements. Having children on a tractor is unsafe.
 - **Indoor safety precautions:** Prevent indoor carbon monoxide buildup by ensuring that adequate ventilation is always available when starting or operating a tractor indoors.
- Make sure that exhaust fans are running if available, and always leave the structure's doors open if exhaust fans are not available.
- **Highway safety:** Employers should train tractor operators to avoid highways during busy peak travel times or poor visibility, and at night or during bad weather. Lighting and markings for tractors and towed equipment should be up-to-date and in accord with transportation regulations. Tractor operators should consider using emergency flashers and an escort vehicle to increase the tractor's visibility. The tractor should have a clean, highly visible, unfaded slow-moving vehicle (SMV) emblem affixed to the rear. SMV emblems are required in 34 states, and they must be displayed on the rear of any tractor and its towed attachment traveling 25 mph or slower. Employers should check state highway regulations to determine if a SMV emblem is required in their state or local jurisdiction.

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