



Dairy Safety Student Handbook

Part of the *Dairy Safety Training Toolkit*

Farmworker Justice

September 2022

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Note

Scenes in the video accompanying this training guide were dramatized for educational purposes. This video was filmed at an Aurora Organic Dairy (AOD) facility. AOD is a certified organic producer and complies with organic standards for animal care and milk production.

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Lesson #1: Disease Prevention

Summary: In this vignette, we are introduced to “Luis”, a new dairy worker, who is receiving training on dairy farm safety. His supervisor (“Paco”) and an experienced worker (“Paola”) discuss with Luis the importance of wearing PPE to prevent the spread of diseases. They also talk about the ways in which germs can be spread, the need for equipment disinfection, and how to maintain proper hygiene.

The video vignette ends with Paola and Paco explaining to Luis how to avoid bringing diseases home and speaking about the need to seek medical attention if he becomes sick.

Key Terms

- **PPE:** “Personal Protective Equipment.” Clothing and equipment that protects you from the spread of disease. PPE includes masks, goggles, aprons, and gloves.
- **Pasteurization:** Heating milk or certain foods to kill bacteria and other germs.
- **Salmonella, listeria, and bovine tuberculosis:** Diseases that cows can carry that can also make humans sick.

Initial Discussion

Have you heard of anyone becoming ill from their work on a dairy farm?

How do you think dairy workers could become exposed to disease?

Key Points

- All cows, including healthy ones, can carry diseases that can be dangerous to humans.
- People can be exposed to diseases through manure, contaminated equipment and clothing, and unpasteurized milk.
- To avoid the spread of disease:
 - Wear PPE at all times and dispose of it properly
 - Disinfect milking machinery between uses
 - Don't eat or drink near the cows, and wash your hands before eating
 - Wash your hands and shower directly after work, before interacting with others

Small-Group Reflection

What are some of the different ways that Luis could be exposed to disease on the dairy farm?

What strategies does Luis learn to help protect himself from exposure to disease?

What does Luis' employer do to help keep him safe from disease?

Are there any other strategies you've heard of that protect workers from disease?

What should you do if you *do* become sick?

OSHA Standards Mentioned

- Personal Protective Equipment: 29 CFR 1910 Subpart I (recommended)
- Bloodborne Pathogens: 29 CFR 1910.1030 (recommended)

Lesson #2: Cattle Handling Safety

Summary: In this video vignette, Luis learns to interact safely with cattle. Experienced workers explain why cattle can pose dangers to workers. They teach Luis how to keep the animals calm and what to do if they become agitated. The vignette also contains information specific to safety around bulls.

Key Terms

- Flight zone: A cow's "personal space." It's the distance you should stand from a cow so it feels comfortable.

Initial Discussion

What do you know about cows? What do they like or dislike?

How do you think cattle could injure a worker?

Key Points

- Although cows look tame, they are large and can cause serious injury.
- Cows are less likely to cause injury when they are calm. To keep cows calm, let them know you're approaching, and avoid making loud noises.
- Don't put yourself between a cow and a wall or gate. Otherwise, you could be crushed.
- If a cow or bull does become agitated, back away slowly. For cows, back out of the flight zone.
- Be aware of the bull at all times and keep your distance when possible. Watch for warning signs.
- If a bull begins to appear agitated or upset, it is safest to **retreat slowly**. You should **only run if the bull runs toward you to charge you**.

Small-Group Reflection

What are some of the ways that cows and bulls can pose a danger to workers?

What strategies does Luis learn to keep the cows calm and make sure he interacts with them safely?

What does Luis' employer do to help keep him safe around the cattle?

Is there anything else you should or shouldn't do around the cows?

What should you do if a cow or bull *does* become agitated?

Lesson #3: Tractor Safety

Summary: Luis learns basic strategies to stay safe around tractors and while operating them. His trainers discuss seatbelts, mirrors, and power take offs. They demonstrate safe, slow driving, while Paco emphasizes the need for both drivers and passersby to remain aware of their surroundings and keep appropriate distance.

Key Terms

- Power take-off (PTO): Equipment that transfers energy from the tractor to another machine or piece of equipment.

Initial Discussion

Have any of you driven a tractor before? Who on the farm drives the tractor?

How might driving a tractor be similar to driving a car? How might it be different?

Key Points

- Tractors are dangerous, heavy machinery and cause most of the accidents on farms.
- To remain safe around tractors:
 - Drive slowly to avoid tips and spills.
 - Always fasten your seatbelt, adjust mirrors, and look for any objects blocking the path before starting the tractor.
 - Only the driver should be on the tractor except when they are training another worker to drive it.
 - Be aware of the power take-offs. Never touch, stand on, or reach over it.

Small-Group Reflection

What are some of the ways that tractors can pose dangers to workers?

What strategies does Luis learn to stay safe around the tractor or when driving?

What does Luis' employer do to help him stay safe around the tractor?

What other strategies could Luis use to stay safe while driving or while near the tractor?

OSHA Standards Mentioned

- Roll-Over Protective Structures: 29 CFR 1928 Subpart C (**required**)
- Guarding of Farm Field Equipment: 29 CFR 1928.57 (**required**)

Lesson #4: Manure Storage Safety

Please note: This video vignette is meant to educate workers on the dangers of manure storage facilities, not to serve as training on how to enter and work in these spaces.

Summary: In this video vignette, the new worker, Luis, receives training on manure storage safety. His trainers explain the dangers of manure storage facilities and tell Luis about the special training, precautions, and safety equipment workers need to enter or work around them safely.

Key Terms

- Manure pit/manure lagoon: Different ways of storing the cows' waste. A manure pit is located under a barn. A manure lagoon is located outdoors.
- Hydrogen sulfide and methane: Poisonous gases produced in manure pits. Hydrogen sulfide can poison humans in seconds. These gases can also explode.
- Winch/hoist: Lifting machines with a rope attached. These can be used to pull workers out of the manure pits and lagoons.

Initial Discussion

Do you think cow manure is dangerous? Why or why not?

Who on the farm is allowed near the manure pits/lagoons? Why?

Key Points

- Manure storage is dangerous because manure produces gases that are toxic and explosive. People and equipment can also fall in.
- To remain safe around manure storage facilities:
 - Never work in a manure pit or lagoon by yourself.
 - Never enter a manure pit or lagoon without the proper safety equipment.
 - Alert your supervisor if there is equipment that needs to be fixed.
 - Don't try to fix the equipment yourself; this is a task for specially trained employees only.
 - Call 911 in case of emergency.
 - Don't smoke anywhere near the manure storage.

Small-Group Reflection

What are some of the ways that the manure pits and lagoons put workers at risk?

What strategies does Luis learn to help protect himself from danger around the manure pits and lagoons?

What does Luis' employer do to help keep him safe around the manure pits?

Are there any other strategies you've heard of to keep safe around manure pits and lagoons?

What should you do if you see someone in danger around a manure pit or lagoon?

OSHA Standards Mentioned

- Permit-Required Confined Spaces: 29 CFR 1910.146

Lesson #5: Chemical Safety

Summary: Luis learns how to stay safe while administering medications to cows and while using chemicals. His trainers discuss the health risks associated with exposure to veterinary medications, and how to handle chemicals safely. They explain how to use PPE properly, how to keep records of medications administered, and what to do in case of exposure to medications or chemicals.

Key Terms

- Hormones: Chemicals that some dairy farms give to cows to increase the amount of milk they produce.
- Footbath: A way to wash cows' feet that prevents injuries and growths on the hoof.

Initial Discussion

What types of medications and chemicals do you use around the dairy farm?

What do you know about these chemicals? What can happen if you get them in or on your body?

Key Points

- Some medications and chemicals that are helpful for cows are dangerous for humans. In particular, hormones can cause the loss of a pregnancy.
- To avoid health complications from medications:
 - Make sure the cow is properly restrained before administering the medication.
 - Wear all the recommended PPE when giving the medication.
 - Dispose of needles and medical supplies safely and quickly after use.
 - Keep records of the medication and when it was given.
 - Seek medical attention if you have a reaction after administering medication or using a chemical.

Small-Group Reflection

What are some of the ways that veterinary medications and chemicals can be harmful to workers?

What strategies does Luis learn to avoid exposure to medications and chemicals?

What does Luis' employer do to help keep him safe from medications and chemicals?

What other strategies could Luis use to prevent exposure to medications and chemicals?

What should you do if you're not feeling well, or if you develop symptoms like a rash or burn, after you're exposed to a medication or a chemical?

OSHA Standards Mentioned

- Bloodborne Pathogens: 29 CFR 1910.1030 (recommended)
- Hazard Communication Standard: 29 CFR 1910.1200 (**required**)
- Medical Services and First Aid Standard: 29 CFR 1910.151 and 1910.151 App A (recommended)

Lesson #6: Dairy Employers' Responsibilities, Dairy Employees' Rights, and OSHA Whistleblower Protections

Key Terms

- OSHA: The Occupational Safety and Health Administration. A government agency that makes sure conditions in the workplace are safe for workers.
- Whistleblower: Someone who informs OSHA about unsafe conditions or violations of rights in the workplace.

Initial Discussion

What responsibilities do you think employers have, related to safety in the workplace?

What rights do you think workers have, related to safety in the workplace?

What are some factors that can make it challenging for dairy workers to exercise their rights?

Key Points

- Dairy employers have certain legal responsibilities in the workplace. There are also additional standards they can follow to create the safest workplace possible.
- Dairy employees have certain rights in the workplace.
- If an employee notices a hazard on the farm, they should bring the conditions to their supervisor's or employer's attention.
- If an employer violates employees' rights, employees can report them to OSHA in several different ways.
- Employers are not allowed to retaliate (take negative actions) against employees who report them to OSHA.
- Workers can report violations to OSHA regardless of their immigration status.

Dairy Employers' Responsibilities

Dairy employers have certain responsibilities to their employees. They **must** comply with the general industry and agriculture standards listed below.

Employers are also bound by the “General Duty Clause” of the Occupational Safety and Health (OSH) Act. This means that they must keep the workplace “free from recognized hazards that are causing or are likely to cause death or serious physical harm to [their] employees.”

If the employer knows there is a hazard, they must take reasonable steps to eliminate or lessen the hazard, even beyond those required by existing standards.

General Industry (29 CFR 1910)	
1910 Subpart H - Hazardous Materials	1910.111 , Storage and handling of anhydrous ammonia.
1910 Subpart J - General Environmental Controls	1910.142 , Temporary labor camps.
	1910.145 , Specifications for accident prevention signs and tags.
1910 Subpart R - Special Industries	1910.266 , Logging operations.
1910 Subpart Z - Toxic and Hazardous Substances	1910.1027 , Cadmium.
	1910.1200 , Hazard Communication.
	1910.1201 , Retention of DOT markings, placards and labels.
Agriculture (29 CFR 1928)	
1928 Subpart A - General	1928.1 , Purpose and scope
1928 Subpart B - Applicability of Standards	1928.21 , Applicable standards in 29 CFR part 1910.
1928 Subpart C - Roll-Over Protective Structures	1928.51 , Roll-over protective structures (ROPS) for tractors used in agricultural operations.

	1928.52 , Protective frames for wheel-type agricultural tractors -- test procedures and performance requirements.
	1928.53 , Protective enclosures for wheel-type agricultural tractors -- test procedures and performance requirements.
1928 Subpart D - Safety for Agricultural Equipment	1928.57 , Guarding of farm field equipment, farmstead equipment, and cotton gins.
1928 Subpart I - General Environmental Controls	1928.110 , Field Sanitation.
1928 Subpart M - Occupational Health	1928.1027 , Cadmium

Source: OSHA. Agricultural Operations: Standards.
<https://www.osha.gov/agricultural-operations/standards>

Descriptions of Select Required Standards

Below is more information about the OSHA standards directly mentioned in the video. For the most complete information about these standards, however, please visit the Code of Federal Regulations at [29 CFR Part 1910 - Occupational Safety and Health Standards](#) and [Part 1928 - Occupational Safety and Health Standards for Agriculture](#).¹

General Industry (29 CFR 1910)	
1910.1200 , Hazard Communication.	This standard requires employers, including dairy employers, to inform employees of hazardous chemicals present in the workplace, have information about these chemicals available for employees, keep chemicals properly labeled, and train employees on how to protect themselves from chemical hazards, among other requirements.

¹ OSHA. Regulations (Standards - 29 CFR). <https://www.osha.gov/laws-regs/regulations/standardnumber>.

Agriculture (29 CFR 1928)	
<u>1928 Subpart C</u> - Roll-Over Protective Structures	Dairy employers are required to follow OSHA’s standard for roll-over protective structures, or ROPS. These are metal enclosures that protect the operator if a tractor overturns. All tractors on the farm must have them.
<u>1928.57</u> , Guarding of farm field equipment, farmstead equipment, and cotton gins.	Dairy employers are required to follow OSHA’s standard for guarding of farm field equipment. This standard contains requirements for the safe operation and repair of tractors and other farm equipment, including the use of guards or shields to protect people from hazards caused by moving parts.

Other OSHA Standards

There are other OSHA general industry standards that, although not technically required for the agriculture industry, are highly recommended for dairy employers. Since OSHA’s General Duty Clause requires employers to maintain a safe workplace, following the safe work practices contained in these standards ensures compliance. Below is a list of some standards related to the following topics discussed in the Dairy Safety Toolkit: disease prevention, manure safety, chemical safety and tractor safety.

Personal protective equipment: 29 CFR 1910 Subpart I	This standard requires employers to provide protective clothing and PPE for eyes and hands, among other protection, wherever it is necessary to protect employees from hazards in the environment. They must also train employees on how to put on and remove the PPE.
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<p>Bloodborne pathogens: 29 CFR 1910.1030</p>	<p>This standard requires that if employees are reasonably anticipated to be exposed to bloodborne pathogens, employers must have an exposure control plan, provide handwashing facilities, and have proper procedures for safely disposing of needles, among other requirements.</p>
<p>Permit-required confined spaces: 29 CFR 1910.146</p>	<p>This standard directs employers to develop and implement a written confined space entry program. This is a set of procedures—including safety equipment and worker training--to ensure that employees who must enter and work in these spaces can do it safely.</p>
<p>Medical services and first aid: 29 CFR 1910.151</p>	<p>This standard contains provisions regarding access to medical advice, training of employees in first aid, washing facilities, and first aid kits.</p>

This is not a complete list of OSHA occupational safety and health standards. For a complete list, see the Code of Federal Regulations at [29 CFR Part 1910 - Occupational Safety and Health Standards](#) and [Part 1928 - Occupational Safety and Health Standards for Agriculture](#).²

² OSHA. Regulations (Standards - 29 CFR). <https://www.osha.gov/laws-regs/regulations/standardnumber>.

Additional resources for employers:

Disease Prevention

OSHA. Agricultural Operations. <https://www.osha.gov/agricultural-operations/hazards>

Manure storage safety

OSHA (2021) Working Safely around Manure Storage Structures. Publication OSHA 4166-11 2021. <https://www.osha.gov/sites/default/files/publications/OSHA4166.pdf>.

OSHA (2018) OSHA Fatal Facts. Confined Space Entry on a Farm. Publication No. 16 – 2018. <https://www.osha.gov/sites/default/files/publications/OSHA3939.pdf>.

Cattle handling safety

National Dairy FARM Program (2021) FARM Workforce Development Safety Reference Manual. https://nationaldairyfarm.com/wp-content/uploads/2021/12/FARM_Safety_Manual_1221_FINAL_DIGITAL_SinglePage-1.pdf.

Chemical safety

Central States Center for Agricultural Safety and Health. Farm Chemical and Pesticide Safety. <https://www.unmc.edu/publichealth/cscash/documents/FarmSafety-chemical.pdf>.

Tractor safety

OSHA (2015) Agricultural Safety Fact Sheet: Protecting Agricultural Workers from Tractor Hazards. <https://www.osha.gov/sites/default/files/publications/OSHA3835.pdf>.

Dairy Employees' Rights

Dairy workers have certain rights in the workplace. These include the right to:

- Receive workplace safety and health training in a language they understand
- Work on machines that are safe
- Receive required safety equipment, such as gloves or a harness and lifeline for falls
- Be protected from toxic chemicals
- Request an OSHA inspection, and speak to the inspector
- Report an injury or illness, and get copies of their medical records
- Review records of work-related injuries and illnesses
- See results of tests taken to find workplace hazards

Speak Up About Safety Violations—Without Fear

If you notice a hazard on the farm, bring the conditions to your supervisor's or employer's attention.

If your employer is not protecting you from workplace hazards as required, you have the **right to report them**.

The Occupational Safety and Health Administration (OSHA) is a federal enforcement agency that helps prevent and protect workers from being killed or seriously injured while at work.

CONTACT OSHA

There are 5 ways:

1. **Telephone**: Call 1 (800) 321 – 6742
2. **Online**: Submit your online complaint to OSHA at <https://www.osha.gov/ords/osha7/eComplaintForm.html>
3. **Fax or email**: Fax or email the online complaint form to your local OSHA office. Include your contact information.
4. **Mail**: Send a letter describing your complaint to your local OSHA office.
5. **In person**: Visit your local OSHA office.

You **never** have to reveal your immigration status to OSHA.

You have the right to a safe workplace--no matter your citizenship!

The whistleblower laws that OSHA enforces prohibit employers from retaliating against employees for engaging in activities protected under those laws.

If you report your employer, they **cannot**:

- Fire you or lay you off
- Demote you
- Deny you overtime or a promotion
- Discipline you
- Deny you benefits
- Fail to hire/rehire you
- Intimidate or harass you
- Threaten you
- Reassign you to a less desirable position or do something that will result in you being denied a promotion
- Reduce or change your pay or hours
- Isolate, ostracize, or mock you, or falsely accuse you of poor performance
- Make your working conditions so intolerable that you quit
- Report you or threaten to report you to the police or immigration authorities

If your employer violates your whistleblower rights, you can complain to OSHA **within 30 days** of the adverse action.