FARMWORKER JUSTICE

JUSTICIA CAMPESINA

Workplace Safety and Health for Farmworkers: Heat Illness

A TRAINING CURRICULUM FOR LAY HEALTH EDUCATORS

Part of the Heat Safety Training Toolkit

Workplace Safety and Health for Farmworkers; Heat Illness: A Training Curriculum for Lay Health Educators was created with the support of the Occupational Safety and Health Administration (OSHA). The curriculum and materials were developed by Farmworker Justice.

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We extend our thanks to the participants in previous trainings whose input and suggestions have influenced and shaped our curriculum development.

Heat Illness: **A Training Curriculum for Lay Health Educators**

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A Training Curriculum for Lay Health Educators

Contents

PRE-COURSE INFORMATION

This training curriculum is for organizations wanting to train lay health educators on the importance of heat safety.

It briefly covers what it means to be a lay health educator and how to be an effective community educator. It reviews basic concepts related to heat illness and workers' right to a safe workplace.

Training Goal

The goal of *Heat Illness: A Training Curriculum for Lay Health Educators* is to provide community-based organizations that work with farmworkers a curriculum to train their lay health educators to disseminate important information to farmworkers and employers on heat hazards, as well as workers' basic rights and employers' responsibilities as they relate to heat safety in agricultural work.

Suggested Schedule

This training is meant to be covered in one day, although it could be delivered over the course of two days. The training lasts from approximately 8:30 a.m. to 5:30 p.m. Suggested agendas are provided as a guide on the following pages.

There is significant set-up to be done prior to the training.

Participants

This training operates best with at least four or five experienced lay health educators. It can be done with a single organization or participants from a variety of organizations. The curriculum can be used to train lay health educators of any racial, ethnic, or cultural background or country of origin.

Materials & Supplies

Materials needed for the course are listed with the instructions for each unit activity. A full list is also provided in the *Participant Packet Handouts* appendix of this guide.

Adapting the Workshop

This manual is highly adaptable and can be used with lay health educators nationwide. However, the activities should always be adapted to the needs and characteristics of the community, taking into account the location, climates, and level of support for workers' rights that vary depending on the region, cultures and experiences of the community members.

Trainers

Instructors with a background in occupational health and safety and experience in training farmworkers are best qualified to lead *Heat Stress: A Training Curriculum for Lay Health Educators*.

If working with non-English speakers, it is best to have a trainer familiar with the language of the participants or an interpreter on hand.

SUGGESTED ONE-DAY TRAINING AGENDA

Duration: 7.5 hours

Time	Length	Activities	Page
8:30	**30 minutes**	**Arrival, Registration and Welcome**	
9:00	60 minutes	Unit 1: Introductions and Overview Introductory Icebreaker Workshop Norms Workshop Objectives What Does It Mean to Be a Promotor/a? Pre-Test	5
10:00	**10 minutes**	**Break**	
10:10	40 minutes	Unit 2: Heat Illness • Heat Illness and Heat Stroke • Case Study	13
10:50	**10 minutes**	**Break**	
11:00	80 minutes	Unit 2: Heat Illness *(continued)* • Preventing Heat Illness • Heat Illness and the Law	18
12:20	**50 minutes**	**Lunch**	
1:10	35 minutes	Unit 2: Heat Illness *(continued)* • Understanding Your Rights at Work	25
1:45	45 minutes	Unit 3: Effective Training Techniques • What is Interactive Training? • Teaching Back to Your Community	29
2:30	**10 minutes**	**Break**	
2:40	60 minutes	Unit 3: Effective Training Techniques *(continued)* • Presentation Practice	33
3:40	**10 minutes**	**Break**	
3:50	60 minutes	Unit 3: Effective Training Techniques *(continued)* • Presentation Practice	33
4:50	40 minutes	Unit 4: Conclusion • Post-Test • Training evaluation	34
5:30		**End Time**	

SUGGESTED TWO-DAY TRAINING AGENDA

Day One

Duration: 3.5 hours

Time	Length	Activities	Page
8:30	**30 minutes**	**Arrival, Registration and Welcome**	
9:00	60 minutes	Unit 1: Introductions and Overview Introductory Icebreaker Workshop Norms Workshop Objectives What Does It Mean to Be a Promotor/a? Pre-Test	5
10:00	**10 minutes**	**Break**	
10:10	40 minutes	Unit 2: Heat Illness • Heat Illness and Heat Stroke • Case Study	13
10:50	**10 minutes**	**Break**	
11:00	80 minutes	Unit 2: Heat Illness *(continued)* • Preventing Heat Illness • Heat Illness and the Law	18
12:20		**End Time**	

SUGGESTED TWO-DAY TRAINING AGENDA *(continued)*

Day Two

Duration: 4 hours

Time	Length	Activities	Page
8:30	**5 minutes**	**Arrival and Welcome**	
8:35	35 minutes	Unit 2: Heat Illness *(continued)* • Understanding Your Rights at Work	25
9:10	45 minutes	Unit 3: Effective Training Techniques • What is Interactive Training? • Teaching Back to Your Community	29
9:55	**10 minutes**	**Break**	
10:05	120 minutes	Unit 3: Effective Training Techniques *(continued)* • Presentation Practice • Presentation Practice	33
12:05	**10 minutes**	**Break**	
12:15	40 minutes	Unit 4: Conclusion • Post-Test • Training evaluation	34
12:55		**End Time**	

Unit 1

Introductions and Overview

- *Introductory Icebreaker*
- *Workshop Norms*
- *Workshop Objectives*
- *What Does it Mean to Be a Promotor/a*
- *Pre-Test*

INTRODUCTORY ICEBREAKER

Objective

To create a comfortable environment for working and sharing experiences and to share knowledge about each other's experiences and backgrounds.

MATERIALS

- Flipchart
- Markers

RECOMMENDED TIME

- 15 minutes

Method

1. Give a brief welcome to the participants and introduce yourself.

   Do this in both Spanish and English and explain that the workshop will often be in both languages and that participants should feel comfortable using whatever language they would like to express themselves.

2. Ask the group what languages they feel most comfortable speaking. Let everyone know that it's okay to ask for clarification if they don't understand something.

3. Choose a dynamic icebreaker, one that will get people to stand up and be active for a few minutes.

4. On a flip chart, write down the information you want each person to share about him/herself. For example:
   - Name
   - Where they were born
   - Any experience they have had as a farmworker (or family members)
   - Why they are interested in participating in this project

5. Within the icebreaker, ask participants to share this information about themselves with the group.

WORKSHOP NORMS

Objective

To agree upon and generate a list of norms to promote a positive learning environment.

MATERIALS

- Flipchart
- Markers

RECOMMENDED TIME

- 5 minutes

Method

1. Explain that you would like to have a positive and comfortable learning environment for all of the workshops. The group should feel free to actively participate in the learning process.

2. Explain that it is helpful if everyone agrees on what this environment should be.

3. Ask the participants to brainstorm the norms or ground rules for the workshop.

4. For each idea that is shared, have the group come to a consensus and then write the idea on a flip chart. Try to encourage some of the following responses:
   - The responsibility of learning needs to be shared by everyone
   - Everyone should participate actively in all the activities of the sessions
   - The sessions should begin and finish on time
   - Respect the views of others
   - Learn from each other's experiences
   - Maintain the confidentiality of any personal information shared by the participants
   - No cell phones or laptops
   - Wait for others to speak, if you have already participated

5. Remind the group that the workshop will be more successful if they actively participate in the training. It is not the job of the facilitator to "teach" the participants. Instead, everyone needs to share the responsibility of learning.

6. Hang the flip chart on the wall after completing the exercise.

WORKSHOP OBJECTIVES

Objective

To be sure that all the participants understand what they will learn during the workshop and to learn participant expectations for the workshop.

MATERIALS

- Flipchart
- Markers
- ***Workshop Objectives*** (Trainer Materials)

RECOMMENDED TIME

- 5 minutes

Method

1. On flipchart (ahead of time) write out the workshop objectives listed on the following page. Hang up the sheet of paper and ask volunteers to read the objectives aloud.

2. Ask if there are any questions or objectives that they would like to cover that are not included on the list.
   - If some are mentioned that you do intend to cover, add them to the list (or explain how they are encompassed by another objective).
   - If something is mentioned that you do not plan to cover, you should explain that you will not cover it but that you'll make a note that it may be of interest for future trainings.

3. Tell the group that throughout the workshop they should feel free to ask questions whenever there is anything they don't understand.

4. Distribute to each participant a copy of the ***Workshop Objectives*** found in the Trainer Materials section of this guide.

Objectives

1) To learn about the causes, symptoms and dangers of heat stress

2) To learn how to prevent heat stress

3) To learn how to respond to symptoms of heat stress or heat-related illness

4) To learn about workers' rights; protections available under state and federal law

5) To learn about employers' responsibilities regarding the protection of workers from heat stress

6) To learn about local resources available to provide assistance and more information about health and safety at work

WHAT DOES IT MEAN TO BE A PROMOTOR/A?

Objective

This is an important activity to do at the beginning of the training in order to establish a common understanding for what it means to be a *promotor*, gauge the expectations of the participants, and provide a realistic view of what *promotores* might expect once they are engaged in their volunteer health outreach.

MATERIALS

- Flipchart
- Markers

RECOMMENDED TIME

- 20 minutes

Method

1. Prepare three pieces of flipchart paper, each with a different topic:
   - "The goals of a promotor/a"
   - "The challenges of a promotor/a"
   - "Characteristics of a successful promotor/a"

2. Post the topics in different areas of the room. Ask the promotores to circulate and note ideas on each paper.

3. Once all promotores have had time to record their ideas, gather them in a large group. Ask if there are some participants present that are already promotores. If there are, ask if there are three or four that would like to talk about their experiences and lead the discussion.

4. Have new promotores gather in a circle around the experienced promotores. As you go through each topic on the flipchart paper, ask both new and seasoned promotores for their ideas. This is a good moment to set a foundation for mentorship between the two groups.

5. Record any additional ideas under the appropriate topic areas. This is a great time to tell the promotores how important their role in the community is and how they are able to make a difference in the community through their work. Make sure you draw out the ideas around volunteering in one's community—why this is important and what this means.

1. Goals of a promotor/a

Examples:

- "I want to learn more about health and share what I learn"
- "I want to prevent more illnesses in my family and friends"

2. Characteristics of a successful promotor/a

Examples:

- "Cares about the people in the community"
- "Interested in learning new things"
- "Able to gain people's trust

3. Challenges of a promotor/a

Examples:

- "I work so much already so I don't have much free time"
- "I've never done public speaking before"
- "I might not be able to communicate the key messages well"

PRE-TEST ACTIVITY

Objective

Assess participants' prior knowledge before beginning the course.

MATERIALS

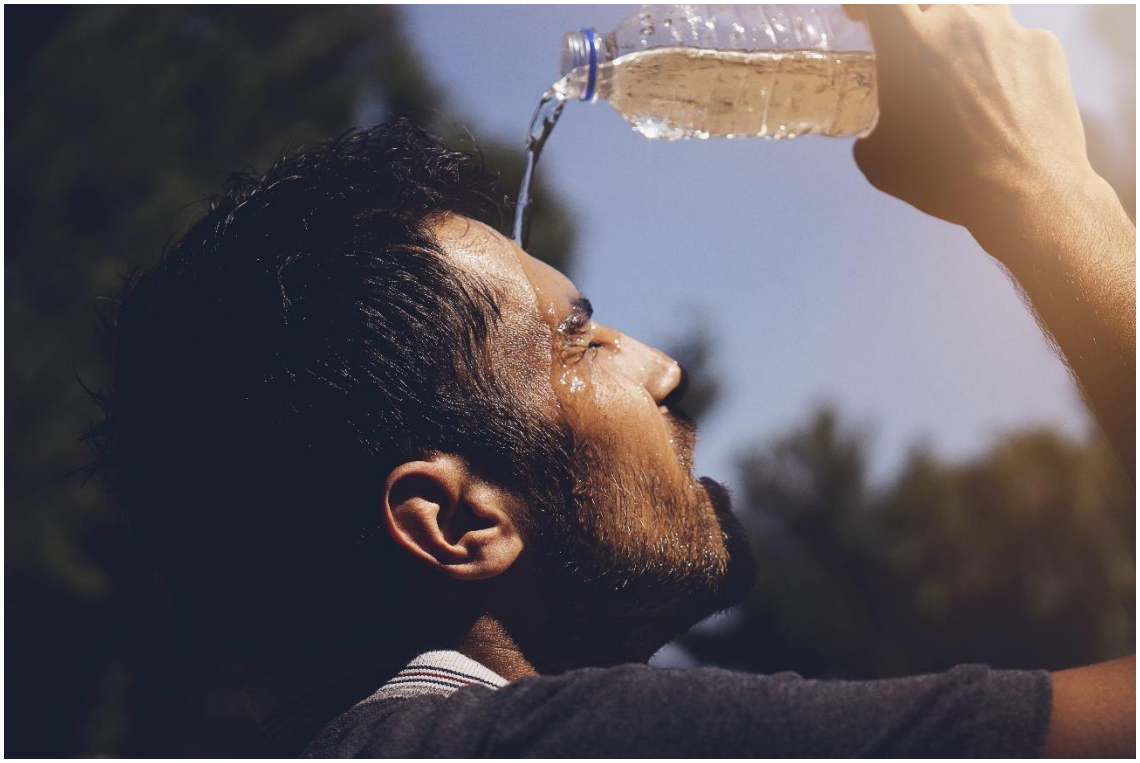
- ***Pre-Test*** (Trainer Materials)

RECOMMENDED TIME

- 15 minutes

Method

1. Distribute the ***Pre-Test*** to the participants before starting the workshop.
2. Explain that this is a questionnaire to help the facilitator make sure that they are presenting the information effectively and doing their job well.
3. Ask participants to answer the questions without consulting with anyone else.
4. If anyone has questions or needs help to answer the questions, ask the facilitator. When all have finished, collect the pre-tests.



Unit 2

Heat Illness

- *Heat Illness & Heat Stroke*
- *Heat Case Study*
- *Preventing Heat Illness*
- *Heat Illness and the Law*
- *Understanding Your Rights at Work*

HEAT ILLNESS & HEAT STROKE

Objective

To recognize the symptoms of heat illness and learn how to help a person suffering from heat illness.

MATERIALS

- Flipchart
- Markers

RECOMMENDED TIME

- 15 minutes

Method

1. Ask the participants what words they use to describe heat illness or heat stroke (*examples:* enfermedad por calor, insolación, golpe de calor).

   There are several kinds of heat illness, including heat exhaustion and heat rash. The most serious heat illness is heat stroke. Almost every year, farmworkers die of heat stroke. Even young and healthy farmworkers suffer from heat illness when doing hard work in conditions of high heat and humidity.

2. Review the symptoms of heat illness. Ask the participants if they have ever felt these symptoms while working in the fields.

   Symptoms of heat illness include:

   - Rashes
   - Weakness
   - Heavy sweating
   - Extreme thirst
   - Nausea or vomiting
   - Dizziness
   - Headache

3. Explain that heat stroke is more serious and review the symptoms.

   Symptoms of heat stroke include:

   - Slurred speech
   - Confusion, inability to think clearly
   - Convulsions/Seizures
   - Collapsing
   - Loss of consciousness/Fainting

4. Discuss ways to prevent heat stroke:
    - Drink plenty of water
    - Take frequent rest breaks in the shade
    - Wear light colored, lightweight cotton clothing
    - Avoid sun exposure (when possible) at peak hours
    - Wear a hat
    - Keep an eye on your coworkers for any sign of heat-related illness
    - **Acclimatization periods** help reduce the risk of heat illness for new workers and those who have not worked in hot conditions for a while. An acclimatization period is a period of time to get slowly used to working in the heat. This can include taking more frequent breaks, working more slowly and/or working fewer hours.

5. Explain to the group that pesticide exposure can worsen the effects of heat stress. In addition, some symptoms of heat-related illness are similar to those of pesticide poisoning:

    - The person may have a headache
    - They may feel sick to their stomach

    A person suffering from symptoms of heat illness should not be left alone. They should rest in the shade and drink plenty of fluids. Once they recover, they should leave the fields. If symptoms do not subside quickly after drinking liquids and resting in a cool place, the worker must receive medical attention.

6. **<u>Important:</u> Explain what to do if a person shows sign of heat stroke (slurred speech, confusion, inability to think clearly, convulsions or seizures, collapsing, loss of consciousness/fainting):**

    - Call **911** for an ambulance immediately. **<u>This is a medical emergency</u>.**
    - Move the person to a cooler, shaded area
    - Remove excess clothing
    - Cool the person such as by spraying them with cool or cold water, putting cold damp towels or ice packs on their head, neck, trunk, armpits, and groin, or by putting them in a tub of cold or ice water
    - If the person is conscious, offer them cold liquids to drink
    - Never give anything to drink to someone who is convulsing or unconscious

7. Ask participants what kinds of people they think are most vulnerable to heat-related illness and why. The most vulnerable are those workers who are:
    - Elderly
    - Pregnant
    - Overweight
    - Have high-blood pressure
    - Not acclimatized (accustomed) to working in the heat or are working during the hottest part of the day

HEAT CASE STUDY

Objective

To discuss how to recognize and how to react to heat-related illnesses.

MATERIALS

- Flipchart paper
- Markers
- **Heat Case Studies: *Victor, Catalina*** (Trainer Materials)

RECOMMENDED TIME

- 25 minutes

Method

1. Choose one of the case studies about heat-related illnesses and ask for a volunteer to read it aloud. Have them read it one time and then ask the participants if they heard any symptoms of heat illness mentioned.

2. Then, ask the volunteer to read it again. While the volunteer is reading the case study the second time, write out the symptoms on the flip chart paper as they are read aloud.

3. Now ask the volunteer to read the discussion questions aloud and help the group answer the questions using the information you wrote on the flip chart paper.

PREVENTING HEAT ILLNESS

Objective

To identify practical steps to reduce the possibility of experiencing a heat-related illness.

MATERIALS

- Prop box with clothes (long, light-colored pants, long sleeved cotton shirt, baseball hat, bandana, sombrero, sunglasses, shorts, sandals, work boots, t-shirt)
- Flip chart paper
- Markers
- "Prevention Theme" Cards - see Step #2
- **Handout 1: *Preventing and Responding to Heat Illness***

RECOMMENDED TIME

- 35 minutes

Method

1. Divide the participants into small groups.

2. Give each group a "prevention theme" card - an index card with one of the four prevention themes written on it (water, shade, rest, clothing). Have each group create a three-minute skit to demonstrate their prevention theme.

3. At the end of each skit ask the other participants if they would have done anything differently and why.

4. Have participants rejoin their groups and ask them to list reasons why it might be difficult for a farmworker to prevent heat illness. Some examples are:

    - Lack of information
    - Lack of potable water
    - Unavailability of shade in fields
    - Extreme temperatures
    - Long work days that include the hottest part of the day
    - Fear of losing their jobs

5. Review **Handout 1: *Preventing and Responding to Heat Illness***

6. Ask the group the following question:
    - How can workers help keep each other safe on hot days?

HEAT ILLNESS AND THE LAW

Objective

To understand regulations about heat exposure at work.

Method

1. Ask participants if they know about any regulations that provide some protection from heat illness in the field.

2. Write the basic parts of the regulations on flip chart paper (training, water, shade, etc). Discuss with the participants the summary of the regulations of the state where they work (see below). If the state does not have a regulation, discuss the section "Other States/Federal law" below.

MATERIALS

- Flipchart
- Markers
- **Handout 2: Employer Fact Sheet—*Safety on the Farm: Protecting Your Employees from Heat Illness***
- **Handout 3: *Field Sanitation Standard***

RECOMMENDED TIME

- 45 minutes

State heat regulations

This section summarizes the most important requirements of different state standards (regulations) meant to protect workers from hazardous heat exposure. It is current as of December 2022. The standards also contain other requirements that are not discussed here. Most states do not have heat standards. Refer to the section "Other States/Federal law" for the protections available in those states.

California

California has a heat standard (T8 CCR 3395) to protect outdoor workers. Under this rule, employers must take the following steps to prevent heat illness:

1) **Training.** All supervisors and employees must be trained on heat illness prevention before working outdoors. Workers must be paid for the time when they participate in the training.

2) **Water.** Provide enough cool, clean drinking water for each employee so that they can drink at least 1 quart (4 cups) per hour throughout the workday. Water must always be readily accessible and as easy as possible for workers to reach while working.

3) **Shade.** Employers must provide shaded areas up and ready when the temperature reaches **80 degrees Fahrenheit**. They must provide enough shade for the number of workers on recovery or rest periods.

4) **Rest.** Employers must provide access to shade for at least 5 minutes of rest when a worker asks to rest in the shade. When the temperature is **95 degrees or more**, give workers a rest break of at least 10 minutes in the shade every two hours.

5) **Acclimatization.** Employees must be observed closely during a heat wave. Employees who have been newly assigned to a high heat area must be monitored closely for 14 days.

> **Acclimatization period:** The period of time in which a person gets used to working in hot conditions.

6) **Emergency response.** Employers must ensure that workers showing signs of heat illness receive medical attention according to the severity of the symptoms, including calling emergency medical services when necessary. If necessary, the employer must transport the worker to a place where they can be reached by emergency medical services.

7) **Planning.** Develop and implement a written plan for complying with the standard.

Colorado

Under Colorado's heat standard (part of the Agricultural Labor Conditions Rules; 7 CCR 1103-15), agricultural employers are required to provide the following protections:

1) **Training.** Train all employees, including supervisors, on heat illness prevention and response.

2) **Water.** Provide one quart (4 cups) per hour of cool drinking water per person, located as close as practicable to the worksite, but no more than one quarter of a mile.

3) **Shade.** On days when the temperature is or is forecast to be **80 degrees or more**, provide a shaded area for workers to use during rest, meal, cool-down, and other breaks, as close as practicable to the worksite, but no more than one quarter of a mile.

4) **Rest.** Allow employees to take rest breaks in the shade when the employees believe it is necessary to cool down. Give employees a rest break of at least 10 minutes every two hours when the temperature is **95 degrees or more**.

5) **Acclimatization.** If an employee is in their first four workdays for the employer (or their first four days of work for the employer in over a month), they must be given a rest break of at least 10 minutes every two hours.

6) **Emergency response.** Monitor workers for sign or symptoms of heat-related illness and provide first aid or access to emergency medical treatment when needed.

Oregon

Oregon's heat standard (OAR 437-002-0156) requires employers to provide these protections:

1) **Training.** Must provide training in heat illness prevention and response to all employees, including supervisors, in a language they understand.

2) **Water.** Provide enough cool or cold drinking water so that every worker is able to drink one quart (4 cups) per hour.

3) **Shade.** Provide shade when the **heat index** (not temperature) is **80 degrees or more.** Must be at least enough to accommodate the number of employees on recovery or rest periods, and located as close as practical to the areas where employees are working.

4) **Rest.** When the **heat index is 90 or greater** the employer must give workers, at a minimum, a 10-minute cool-down rest break every two hours. When the **heat index is 100 or greater**, the minimum is 15 minutes every hour.

5) **Acclimatization.** Employers must have an acclimatization plan to help new workers and those who have not worked in the heat for some time to become accustomed to working in hot conditions.

6) **Emergency response.** Must have an emergency medical plan addressing heat-related illness. Another Oregon rule (OAR 437-004-1305) also requires that emergency medical services be available and called in time to give appropriate treatment.

7) **Planning.** Develop and implement a written plan for complying with the standard.

Washington

Washington State's Outdoor Heat Exposure Rule (WAC 296-307-097) applies from May 1 through September 30. Agricultural employers in the state must provide:

1) **Training.** All supervisors and employees must be trained on heat illness prevention before working outdoors in high temperatures. Workers must be paid for the time they spend participating in the training.

2) **Water.** Provide the opportunity for each worker to drink at least one quart (4 cups) of drinking water per hour throughout the workday. Water must be readily accessible at all times.

3) **Shade.** On days when the outside temperature is **89 degrees or more**, must provide

enough shade to accommodate the number of employees on a meal or rest period. The shade must be located as close as practicable to the areas where employees are working.

4) **Rest.** Must encourage and allow employees to take a preventative cool-down rest period in the shade when they feel the need to do so. Employers must ensure that employees take mandatory cool-down rest periods of at least 10 minutes every two hours when the outside temperature is **89 degrees or more** (77 degrees if wearing double-layer or heavy clothing; 52 degrees if wearing non-breathable clothes such as some types of personal protective equipment). These cool-down rest periods must be paid.

5) **Acclimatization.** Must closely observe for 14 days new employees and employees who have not worked in hot conditions for a while.

6) **Emergency response.** Train all workers, including supervisors, in emergency response procedures.

7) **Planning.** Develop and implement a written plan for complying with the standard.

Other States/Federal law

- Most states do not have regulations regarding heat exposure of outdoor workers.
- There is no federal heat standard. However, under the federal Occupational Safety and Health Act, an employer must provide a safe workplace that is free from recognized hazards that may cause death or serious physical harm to a worker. This is known as the *General Duty Clause*.
- The *General Duty Clause* applies to heat-related hazards.
- If temperatures are extremely high, an employer must take precautions to protect workers.
- The federal Occupational Safety and Health Administration (OSHA) has cited and fined employers for allowing their employees to suffer dangerous heat exposure.

3. Distribute to participants **Handout 2: Employer Fact Sheet—*Safety on the Farm: Protecting Your Employees from Heat Illness***. Discuss the first page of the fact sheet with participants.

4. Ask participants the following questions. Once they have had an opportunity to respond, tell them the correct answer.

   - If a worker suffers a heat stroke at work in a state that does not have a heat standard, can the employer be held responsible?

     *(**Correct answer:** Yes)*

   - Is there any law that can protect workers if their state doesn't have a heat standard?

     *(**Correct answer:** Yes. There is a federal law, the Occupational Safety and Health Act.)*

   - What does an employer need to do to protect their employees from heat illness?

     *(**Correct answers include**: Provide water, shade and rest breaks; Have a written plan to prevent heat illness; Have a written plan for emergencies; Train all employees on heat safety; Monitor employees for symptoms of heat illness; Get medical help for employees suffering from symptoms of heat illness.)*

5. Have participants share any personal experiences related to heat illness.

6. Distribute to participants **Handout 3: *Field Sanitation Standard***.

7. Explain that there are both federal (national) and state rules about field sanitation. The federal rule, the Field Sanitation Standard (29 CFR 1928.110), establishes the minimum water and hygiene facilities that an employer must provide their workers.

8. Ask participants if they know what the minimum requirements are for water and sanitation in the field.

   Federal Standard (29 CFR 1928.110)

   At farms/ferneries/nurseries that employ 11 or more workers, employers must provide:

   - A toilet and toilet paper within ¼ mile of their work area
   - One toilet for every 20 employees
   - Handwashing facilities and disposable paper towels within ¼ mile of their work area, close to where the toilets are located.
   - Plenty of cool, clean drinking water and single use cups.

California (T8 CCR 3457)

Employers of any agricultural workplace where workers are engaged in hand-labor operations, regardless of the number of employees must provide:

- A toilet and toilet paper within ¼ mile of the employees' work area.
- One toilet for every 20 employees of each sex.
- Employers can provide single-user toilets to be used by workers of both genders as long as they are still providing the required number of toilets and all single-user toilets are for use by both genders.
- Handwashing facilities and disposable paper towels within ¼ mile of employees' work area.
- One handwashing facility for every 20 employees, close to where the toilets are located.
- Cool, clean drinking water and single use cups or fountains.

Other states may have their own field sanitation rules.

9. Explain that the requirements in the federal Field Sanitation Standard ensure that all workers have a right to have drinking water and sanitation facilities in the fields, even if their state doesn't have a heat or field sanitation standard.

10. Ask participants if they have ever experienced or reported any field sanitation violations or know anyone who has.

UNDERSTANDING YOUR RIGHTS AT WORK

Objective

To identify resources to report violations of workplace safety laws and discuss ways in which workers can assert their right to a safe workplace.

MATERIALS

- Flipchart
- Markers
- **Handout 4: *Speak Up About Safety Violations– Without Fear***
- **Handout 5: *OSHA Whistleblower Protections***

RECOMMENDED TIME

- 30 minutes

Method

☛ The trainer of *promotores* may deliver this portion of the training using the method below, or may invite a representative from a legal aid organization to explain workers' rights in the state where the *promotores* work.

1. Introduce the section by saying that now that we've reviewed various workplace safety rules that can help protect workers from heat illness, we're going to talk about what to do when the rules are not followed.

2. Bring up some of the violations that the participants expressed from personal experience in the last section.

3. Ask the participants to describe some workplace safety law violations that they've seen or experienced. Did anyone complain about these violations? Has anyone ever done anything when there was no water available, etc.?

4. Ask participants: What can a worker do if his or her rights are violated?

   Workers (or their representative) have the right to file a complaint and request an inspection of their workplace if conditions there are unsafe or unhealthful. Workers also have the right to refuse to perform work that would violate the law or would harm them or their co-workers. Workers have a right to file a complaint regardless of their immigration status.

5. Ask the promotores: Where can workers file a complaint for a violation of workplace safety laws in your state?

   Arizona: Arizona Division of Occupational Safety and Health (ADOSH) enforces the Field Sanitation standard.

   California: Division of Occupational Safety and Health (Cal/OSHA) enforces workplace safety rules

   Colorado: The federal Occupational Safety and Health Administration (OSHA).

   Oregon: Oregon Occupational Safety and Health (Oregon OSHA)

   Washington: Division of Occupational Safety & Health (DOSH)

   For states not listed here, if you do not know which agency is responsible for enforcing work safety laws, contact the nearest office OSHA office. Call 1-800-321-OSHA (1-800-321-6742) to find an area OSHA office, or visit OSHA's State Plans webpage.

6. Distribute to participants **Handout 4: *Speak Up About Safety Violations–Without Fear*.** Review with them the different ways that workers can contact federal OSHA to file a safety complaint.

7. Ask participants which agencies are available to help a worker if they believe that they were denied one or more of the protections available under the General Duty Clause, the Field Sanitation Standard or a state heat standard (if their state has one).

   Workers can consult the nearest legal services agency, a union, a health care facility, a private attorney, or other farmworker service providers.

8. Explain to the group that, generally, workers who fear retaliation should seek assistance in filing a complaint.
   - If a complaint is filed, the state agency will conduct an investigation.
   - Typically, the investigator will speak to the employer, the worker who made the complaint and other workers, the health care provider (if any), and other available witnesses.

- The worker and his witnesses can request an opportunity to speak to the investigator off the farm. Workers can also request that their names be kept confidential and that the complaint be filed anonymously. (If a case goes to a hearing, the worker will have to decide whether or not to allow the agency to release his name. If the worker demands confidentiality at that point, the complaint may be dismissed.)
- If a violation is found, the grower or farm labor contractor may be penalized. This could be a warning, a monetary fine, or in rare instances, a criminal penalty.

8. Distribute to participants **Handout 5: *OSHA Whistleblower Protections*.** Review the prohibited forms of employer retaliation mentioned in the handout.

9. Explain that under section 11(c) of the Occupational Safety and Health (OSH) Act, workers may not be fired or punished in any way for filing a complaint about unsafe or unhealthful working conditions, or by exercising their rights under the law. Workers who are victims of such retaliation may file a complaint by contacting the nearest OSHA office. Workers have 30 days to report retaliation and can do so in any of the following ways:

    1) **Telephone**: Call 1 (800) 321 – 6742.
    2) **Online**: Submit your online complaint to OSHA at https://www.osha.gov/whistleblower/WBComplaint
    3) **Fax or email**: Fax or email the completed 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.

Taking Action

10. Ask the group why some workers are reluctant to complain to outside agencies when workers do not receive the protections to which they are entitled under the law. Responses might include:
    - They don't know their rights
    - They may be undocumented
    - They are afraid of losing their jobs
    - They don't know how to file complaints
    - They don't trust the government agencies to keep their identities confidential

- They don't trust the government agency to fairly investigate their complaints

Ask the group what steps can be taken to address these concerns. Responses might include:

- Educate workers about their right to file a confidential complaint.
- Educate workers about how and where to file complaints.
- Refer workers to unions, legal aid offices and farmworker groups that can help them file complaints and assist them if they suffer retaliation.

Ask the group to identify some groups or agencies in their area that farmworkers could turn to for assistance in filing complaints or seeking to improve workplace safety conditions. Write down their answers on the flipchart.

Unit 3

Effective Training Techniques

- *What is Interactive Training?*
- *Teaching Back to Your Community*
- *Presentation Practice*

WHAT IS INTERACTIVE TRAINING?

Objective

To recognize a variety of interactive training techniques and learn tips for providing fun and effective presentations.

MATERIALS

- Flipchart
- Markers

RECOMMENDED TIME

- 25 minutes

Method

1. Ask the participants to name some characteristics of a good training. An effective training might include:
   - Asking the participants questions
   - Doing demonstrations
   - Role playing and skits
   - Asking volunteers to help
   - Humor and laughter
   - Music, singing, and dancing
   - Changing seats and working in groups
   - Handouts with important information
   - Prizes

2. Ask the participants to provide characteristics of a good presenter. Write their answers on flipchart paper. Ensure that the following are covered:
   - Is enthusiastic about the topic
   - Makes eye contact
   - Is organized and well prepared
   - Has a good sense of humor – is not embarrassed if it doesn't go perfectly

3. Ask the participants why it is important to be a good presenter. Instead of writing their answers on flipchart paper, make this part more like a discussion. Ensure that the following are covered:
   - To effectively share your ideas
   - To demonstrate your knowledge on the topic

- Remember that it's important to practice and prepare a lot in order to be a good presenter!

4. Ask the participants to give characteristics of a good listener. Write their answers on flipchart paper. Ensure that the following are covered:
   - Make eye contact
   - Don't distract the presenter
   - Know when to ask questions without interrupting
   - Take notes, if necessary

5. Ask the participants: What is the difference between hearing (oír) and listening (escuchar)? Instead of writing their answers on flipchart paper, make this part more like a discussion.
   - **Hear:** Means to hear the words without actually paying attention to the message.
   - **Listen:** Means to try to understand the message, and to think about what it means.

6. Ask the participants to think about what they can do to make their own presentations fun and effective.

"TEACHING BACK" TO YOUR COMMUNITY

Objective

To learn outreach and presentation skills.

MATERIALS

- Flip chart
- Markers
- ***How Can We Protect Ourselves from Heat Stress at Work?*** Flip Chart

  This flipchart is available on the Resources page of the Farmworker Justice website: https://www.farmworkerjustice.org/resource/heat-safety-training-toolkit/

RECOMMENDED TIME

- 20 minutes

Method

1. Divide the participants into three groups. If possible, make sure that each group has a mix of experienced and new *promotores*.

2. Distribute one ***How Can We Protect Ourselves from Heat Stress at Work?*** flip chart to each participant.

3. Explain that each group will take 20 minutes to plan a 5 to 10 minute presentation on heat stress safety (depending on what time allows). The experienced *promotores* will help the new *promotores* plan the presentation and the new *promotores* should give most of the presentation (to help the new *promotores* gain experience with public speaking).

4. Explain that the flip chart is a guide. They may follow the format or they can create their own activities around each of the topics.

5. While they are planning their presentations, walk around the room and ask participants if they have questions.

PRESENTATIONS

Objective

To practice presentation skills and to discuss tips for giving good presentations.

MATERIALS

- Flipchart paper
- Markers
- Any other materials participants need

RECOMMENDED TIME

- 120 minutes

Method

1. Ask for a group to volunteer to present first. Be encouraging!
2. Remind the audience members to participate, if the presenters solicit their involvement.
3. After the group finishes, allow 5 to 10 minutes for feedback. Be sure to ask presenters for their own thoughts on the presentation. What was most challenging? What was most enjoyable?
4. Ask another group to volunteer to go next. Follow the same procedures.
5. After all the groups have gone be sure to reiterate that the first presentation is always the hardest and that they always get better with practice.
6. Let them know that there are many different ways to give presentations and that everyone has his or her own style. Different styles work for different people!

Unit 4

Conclusion

- *Post-Test*
- *Training Evaluation*

POST-TEST ACTIVITY

Objective

Assess learning from the training.

MATERIALS

- ***Post-Test*** (Trainer Materials)

RECOMMENDED TIME

- 15 minutes

Method

1. Tell the participants they will be taking the same test that they took at the beginning of the workshop.
2. Remind them that this test is meant to help the facilitators make sure that information is presented effectively and that they are doing her job well. It will also help improve the training.
3. Ask participants to answer the questions without consulting with anyone else. Distribute the ***Post-Test*** and have them complete it.
4. Walk around the room to make sure that no one has any questions.
5. **After everyone is finished, review the correct answers.**

TRAINING EVALUATION

Objective

To determine what people learned from the training, what they liked, what they would change, and what they thought was missing.

MATERIALS

- ***Training Reaction Survey*** (Trainer Materials)
- Cut-outs of flower petals, smiley faces, and bugs
- Ball of yarn
- Flip chart
- Markers
- Tape

RECOMMENDED TIME

- 25 minutes

Method

Ask the participants to fill out the ***Training Reaction Survey***. Next, do a more detailed evaluation of the training using one of the evaluation methods described below.

Evaluation Option #1: Petals, Smileys & Bugs

1. Explain that you will be asking a few questions about what they thought of the training and that their answers will help you improve the training in the future.

2. On flip chart paper, draw an outdoor scene with a flower stem and center, grass on the ground, and clouds in the sky.

3. Hand out the petals, smiley faces, and insects to participants.

4. Explain that the:

   - petals represent things that they learned
   - smiley faces represent what they liked about the training
   - insects represent what they would change about the training or something they think was missing from the training

5. Give the participants enough time to think about what they would like to write on their petals, insects, and smiley faces, about 10 or 15 minutes. (The facilitator should walk around the room to answer questions and help participants who have trouble writing.)

6. Then have each participant come up to the front and use tape to place their petals, insects and smiley faces on the drawing.

7. At the end, ask if the participants if they would like to share their thoughts on what they

learned, liked, disliked, or thought was missing.

8. Ask participants if they have any additional thoughts to add.
9. Thank everyone for their participation and contribution to the trainings.
10. **Be sure to save the activity so that answers can be documented and reported on later.**

Evaluation Option #2: Wrap Up Web

1. Ask the group to stand in a circle and give the ball of yarn to one participant.
2. Explain that you will ask each person a few questions and will take notes on their answers so you can remember what they say. Explain that their answers will help you improve the training in the future.

   The questions are as follows:

   - What are two things you learned during this training?
   - What did you like the most?
   - What would you change?
   - What was missing from this training?

3. Ask the first participant to answer the questions and quickly take notes on their answers. After the first person finishes answering the questions, they should hold on to the end of the ball of yarn and then throw it to another participant across the circle.
4. Ask the person who caught the ball of yarn the same questions. After they finish answering, have them hold on to a piece of the yarn as they throw the rest of the ball to yet another participant (the idea is that you are creating a web).
5. When everyone has answered, ask if anyone has any additional thoughts to add. Thank everyone for their participation and contribution to the trainings.
6. **As soon as possible after the training, use your notes to create a document describing their answers.**

TRAINER MATERIALS

- *Materials & Handouts List*
- *Workshop Objectives*
- *Pre-Test for Promotores*
- *Case Study: Victor*
- *Case Study: Catalina*
- *Post-Test for Promotores*
- *Training Reaction Survey*

MATERIALS & HANDOUTS LIST

Unit 1: Introductions and Overview

- Markers
- Flip chart and pad
- Workshop Objectives (Trainer Materials)
- Pre-Test (Trainer Materials)

Unit 2: Heat Related Illness

- Flip chart and pad
- Heat Case Studies: Victor and Catalina (Trainer Materials)
- Prop box with clothes: long light-colored pants, long-sleeved cotton shirt, baseball hat, bandana, hat, sunglasses, shorts, sandals, work boots, t-shirt
- "Prevention Theme" Cards: index cards with each prevention theme written on them (water, shade, rest, clothing)
- Handout 1: Preventing and Responding to Heat Illness
- Handout 2: Employer Fact Sheet—Safety on the Farm: Protecting Your Employees from Heat Illness
- Handout 3: Field Sanitation Standard
- Handout 4: Speak Up About Safety Violations–Without Fear
- Handout 5: OSHA Whistleblower Protections

Unit 3: Effective Training Techniques

- Flip chart and pad
- Markers
- Props participants need for presentations
- "How Can We Protect Ourselves from Heat Stress at Work?" Flip Chart

You can find this on the Resources page of the Farmworker Justice website: https://www.farmworkerjustice.org/resource/heat-safety-training-toolkit/

Unit 4: Conclusion

- Flip chart and pad
- Markers
- Cut-outs of flower petals, smiley faces, and bugs
- Ball of yarn

WORKSHOP OBJECTIVES

- To learn about the causes, symptoms and dangers of heat stress
- To learn how to prevent heat stress
- To learn how to respond to symptoms of heat stress or heat-related illness
- To learn about workers' rights; protections available under local, state, and federal law
- To learn about employers' responsibilities regarding the protection of workers from heat stress
- To learn about local resources available to provide assistance and more information about health and safety at work
- Have fun!!!

PRE-TEST FOR PROMOTORES

Your Name: _____

Date: _____

Location: _____

Instructor Name: _____

Instructor Signature: _____

Answer the following questions by choosing only one answer.

1. What kind of clothing helps to prevent heat illness?
   a) Thick wool jacket
   b) Dark-colored, water-proof clothes
   c) Light-colored, loose-fitting clothes
   d) None of the above

2. What are some symptoms of heat illness?
   a) Thirst
   b) Headache
   c) Dizziness
   d) All of the above

3. What is a symptom of heat stroke?
   a) Fainting
   b) Sneezing
   c) Hunger
   d) Feeling more energy than usual

4. What should you do if someone shows signs of heat stroke?
   a) Call their family to come pick them up
   b) Take them to a place where they can rest alone and check on them later
   c) Call an ambulance, take them to a shaded area and cool them down with cold water or ice packs
   d) None of the above

5. What should you do if you think you might have heat illness?
    a) Keep working until the symptoms go away
    b) Tell your boss, seek shade, rest and drink water
    c) Take an aspirin
    d) Drink coffee to help you revive

6. Which of the following is your employer required to provide to workers in the fields?
    a) Access to nutritious food
    b) Sodas or juice
    c) Cool, clean drinking water
    d) None of the above

7. What should an employer do to protect workers who are not used to working the heat?
    a) Provide food at work
    b) Have them work alone
    c) Have them work faster so they can get used to working in the heat
    d) Provide an acclimatization period and let them take more frequent breaks

8. How can workers help keep each other safe on hot days?
    a) Encourage each other to keep working for as long as possible
    b) Keep an eye on each other for symptoms of heat illness
    c) Encourage coworkers to work faster
    d) Nothing

9. **True or false:** A worker has to be a U.S. citizen to make a work safety complaint to OSHA.
    a) True
    b) False

10. Which of these is an employer required to provide to farmworkers to protect their health?
    a) Paid time off to recover from a cold
    b) Health insurance for the farmworkers and their families
    c) A safe workplace
    d) None of the above

CASE STUDY

Victor

Victor works in the fields of California's San Joaquin Valley. Today is just like any other day at work, except for one thing: it is much warmer. The weather today has shocked even him, a Stockton native. Victor wants to take a break from work but is afraid his crew leader will think he's a lazy worker. He starts getting very thirsty and his mouth becomes dry.

Victor drinks some water from the closest water station. He begins to feel better, yet he still develops a headache. He feels irritated by the weather and wishes to go home, yet he must continue working on this very hot day if he wants to make a little more money. However, he continues sweating and begins feeling very weak.

Questions:

- What are the symptoms of heat-related illness that Victor is experiencing?
- What are the most serious symptoms? Which are less serious?
- Should Victor remain in the fields or should he seek medical help?
- What are some things that workers can do in such situations to relieve some of the symptoms of heat illness? (seek emergency medical care, seek shade, help others to seek shade, drink water, rest, loosen or remove clothing, remove shoes, drink water or other beverages that don't have alcohol or caffeine, splash cold water on body, massage legs and arms, shower in cold water, fan the person).
- Ask participants if they have any personal stories of heat-related illness that have happened to them, family, or community members. What did they do?

CASE STUDY

Catalina

Catalina is an apple picker in Washington's Yakima Valley. One day at work, Catalina begins feeling a bit strange. She is picking apples in the heat, like she always has, yet she begins feeling weak and exhausted. Her body sweats profusely and she gets extremely thirsty. Furthermore, she needs to go to the restroom immediately. She leaves to the closest restroom and continues feeling very weak.

Once she returns to the fields, her symptoms don't go away. Catalina wants to go to the restroom again, yet she just came back. She tells herself to continue working, though her heart begins beating faster and she becomes disoriented. Her co-workers ask her what's wrong, but Catalina's speech becomes slurred. They can't understand her. Suddenly, Catalina collapses on the ground.

Questions:

- What are the symptoms of heat illness that Catalina is experiencing?
- What are the most serious symptoms? Which are less serious?
- What should Catalina's co-workers do in this situation?
- What are some things that workers can do in such situations to relieve some of the symptoms of heat illness? (seek emergency medical care, seek shade, help others to seek shade, drink water, rest, loosen or remove parts of clothing, remove shoes, drink water or other beverages that don't have alcohol or caffeine, splash cold water on body, massage legs and arms, shower in cold water, fan the person)
- Ask participants if they have any personal stories of heat-related illness that have happened to them, family, or community members. What did they do?

POST-TEST FOR PROMOTORES

Your Name: _____

Date: _____

Location: _____

Instructor Name: _____

Instructor Signature: _____

Answer the following questions by choosing only one answer.

1. What kind of clothing helps to prevent heat illness?
   a) Thick wool jacket
   b) Dark-colored, water-proof clothes
   c) Light-colored, loose-fitting clothes
   d) None of the above

2. What are some symptoms of heat illness?
   a) Thirst
   b) Headache
   c) Dizziness
   d) All of the above

3. What is a symptom of heat stroke?
   a) Fainting
   b) Sneezing
   c) Hunger
   d) Feeling more energy than usual

4. What should you do if someone shows signs of heat stroke?
   a) Call their family to come pick them up
   b) Take them to a place where they can rest alone and check on them later
   c) Call an ambulance, take them to a shaded area and cool them down with cold water or ice packs
   d) None of the above

5. What should you do if you think you might have heat illness?
    a) Keep working until the symptoms go away
    b) Tell your boss, seek shade, rest and drink water
    c) Take an aspirin
    d) Drink coffee to help you revive

6. Which of the following is your employer required to provide to workers in the fields?
    a) Access to nutritious food
    b) Sodas or juice
    c) Cool, clean drinking water
    d) None of the above

7. What should an employer do to protect workers who are not used to working the heat?
    a) Provide food at work
    b) Have employees work alone
    c) Have employees work faster so they can get used to working in the heat
    d) Provide an acclimatization period and let them take more frequent breaks

8. How can workers help keep each other safe on hot days?
    a) Encourage each other to keep working for as long as possible
    b) Keep an eye on each other for symptoms of heat illness
    c) Encourage coworkers to work faster
    d) Nothing

9. **True or false:** A worker has to be a U.S. citizen to make a work safety complaint to OSHA.
    a) True
    b) False

10. Which of these is an employer required to provide to farmworkers to protect their health?
    a) Paid time off to recover from a cold
    b) Health insurance for the farmworkers and their families
    c) A safe workplace
    d) None of the above

PRE- AND POST-TEST ANSWER KEY

1. What kind of clothing helps to prevent heat illness?

   c) Light-colored, loose-fitting clothes

2. What are some symptoms of heat illness?

   d) All of the above

3. What is a symptom of heat stroke?

   a) Fainting

4. What should you do if someone shows signs of heat stroke?

   c) Call an ambulance, take them to a shaded area and cool them down with cold water or ice packs

5. What should you do if you think you might have heat illness?

   b) Tell your boss, seek shade, rest and drink water

6. Which of the following is your employer required to provide to workers in the fields?

   c) Cool, clean drinking water

7. What should an employer do to protect workers who are not used to working the heat?

   d) Provide an acclimatization period and let them take more frequent breaks

8. How can workers help keep each other safe on hot days?

   b) Keep an eye on each other for symptoms of heat illness

9. **True or false:** A worker has to be a U.S. citizen to make a work safety complaint to OSHA.

   b) False

10. Which of these is an employer required to provide to farmworkers to protect their health?

    c) A safe workplace

TRAINING REACTION SURVEY

Instructor name:	
Date:	
Location:	

Heat Safety: Training of Trainers

Training Reaction Survey

1. Did you learn something new from the training?	**Yes**_____	**No**_____
2. Were the topics of the training relevant to your work?	**Yes**_____	**No**_____
3. Was the trainer engaging?	**Yes**_____	**No**_____
4. Were the training materials useful?	**Yes**_____	**No**_____
5. Were the training activities useful?	**Yes**_____	**No**_____

PARTICIPANT PACKET HANDOUTS

- *Preventing and Responding to Heat Illness*
- *Employer Fact Sheet—Safety on the Farm: Protecting Your Employees from Heat Illness*
- *Field Sanitation*
- *Speak Up About Safety Violations–Without Fear*
- *OSHA Whistleblower Protections*

PREVENTING AND RESPONDING TO HEAT ILLNESS

Farmworkers can suffer heat illness while working hard under high temperatures and humidity. To prevent this:

- Drink plenty of cold water (at least **four cups per hour**. You don't have to drink it all at once)
- Take short breaks and go into the shade
- Use loose cotton clothing
- Do the heaviest tasks during the coolest hours of the day
- Avoid alcohol or caffeinated beverages
- Keep an eye on your coworkers for any signs of heat illness

The symptoms of heat illness include:

- Headaches
- Dizziness
- Irritability
- Thirst
- Nausea
- Heavy sweating
- Weakness
- Elevated body temperature

If you have these symptoms, rest, move to the shade, drink a lot of water, and refresh yourself.

If you don't treat these symptoms immediately, **heat stroke** can occur, which is much more serious. The symptoms of heat stroke include:

- Hot skin
- Slurred speech
- Confusion/inability to think clearly
- Convulsions/Seizures
- Collapsing
- Loss of consciousness/fainting

In case of heat stroke, someone must call 911 for an ambulance. **This is a medical emergency.** Move the victim to a shaded area and try to cool their body – loosen and remove heavy clothing. If they are conscious and able to drink, make sure that the person drinks cold fluids. Never give anything to drink to an unconscious person. Put cold, damp towels or ice packs over their body, especially on the head, neck, trunk, armpits, and groin.

If you are not sure if the person has heat stroke, call an ambulance and treat them as if they are suffering from heat stroke, following the instructions above. This could save their life.

FARMWORKER JUSTICE

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JUSTICIA CAMPESINA

Dec 2022

SAFETY ON THE FARM: PROTECTING YOUR EMPLOYEES FROM HEAT ILLNESS

The Occupational Safety and Health (OSH) Act requires employers to provide their employees with **"employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm".** This is called the *General Duty Clause*. Excessive heat exposure is one of these recognized hazards. Exposure to high temperatures at work may lead to heat-related illness and heat stroke, which can quickly turn fatal. The heat stress caused by exposure to high temperatures also increases the risk of workplace accidents.

Keep in mind: Temperature is not the only factor that puts people at risk of heat-related illness. High humidity, direct sun exposure, lack of wind and the intensity of a person's workload affect risk. In addition, people may have personal risk factors. A person performing heavy work may suffer from heat illness at temperatures that may appear comfortable to a person at rest. You can find a **recommended work/rest schedule** on pages 57-58.

This fact sheet explains the actions you can take to protect your employees from heat hazards, and summarizes relevant federal workplace safety requirements, where applicable. **Your state may have additional, stricter rules.** For the most up-to-date requirements, contact your state's occupational safety agency or your local OSHA office. For your local OSHA office, see: https://www.osha.gov/contactus/bystate

Employer responsibilities

There are a number of important things you can do as an employer to protect your employees from heat illness. Some of these are required by federal regulations. As mentioned above, states may have additional rules you must follow. Regardless of whether any one of the following protections is required or not, providing these will help you maintain a safe workplace as the General Duty Clause mandates:

- ❖ Water
- ❖ Shade
- ❖ Rest
- ❖ Acclimatization
- ❖ Toilet & handwashing facilities
- ❖ Training in prevention & response
- ❖ Monitoring & communication
- ❖ Heat illness prevention plan
- ❖ Emergency response plan

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JUSTICIA CAMPESINA

Dec 2022

Definitions

- **Acclimatization:** The process by which a person's body adapts to working in the heat, reducing (but not eliminating) their risk of heat illness.
- **Heat Stress:** A condition in which the body cannot get rid of excess heat and core body temperature rises.
- **Heat Illness:** Includes conditions such as heat cramps, heat rashes, heat exhaustion, heat syncope and heat stroke, which are caused by heat stress.
- **Heat stroke.** A medical emergency in which body temperature rises and the body loses its ability to regulate its temperature. A person who is developing or has developed heat stroke may have vertigo, nausea, headache, confusion or bizarre behavior, very high body temperature and loss of consciousness. Left untreated, heat stroke is fatal.

Workplace protections

The following practices are meant to protect agricultural workers from heat stress. Some states may have stricter requirements that employers must follow. For more information, see *State Standards* on page 55.

•Water. The Occupational Safety and Health Administration's (OSHA) Field Sanitation Standard **requires** employers to provide employees water that is:

- Potable
- Suitably cool
- Placed in locations readily accessible to all employees
- Dispensed in single-use drinking cups or by fountains. Common drinking cups and dippers are prohibited.

For the full list of requirements, see OSHA's Field Sanitation Standard (CFR 1928.110). In addition, the National Institute for Occupational Safety and Health (NIOSH) recommends that employers provide enough cool water so that every employee can drink at least **4 cups (32 oz.) per hour.** The recommended temperature for drinking water is **less than 59°F**. Sports drinks with balanced electrolytes are also recommended for people who are sweating for several hours, but enough drinking water should still be readily available.

•Shade. Establish one or more shaded areas as close as practicable to areas where employees are working. A shaded area is adequate if it is open to the outside air and blocks sunlight so that objects don't cast a shadow. Make sure there aren't obstacles or nuisances that might deter employees from resting in the shade (for example, if the shade were located immediately next to the toilet facilities, across a busy road, or next to a source of heat.) Ensure there is enough shade for all employees who are on rest or breaks at any one time to rest seated fully in the shade, in a normal seating position.

•Rest. Rest is important to allow the body to cool down. For rest breaks to be effective, workers need to rest in the shade. Anyone who feels that they need a cool-down rest break or is showing signs of heat stress or heat illness should be allowed to take a break in the shade; preferably for at least 10 minutes. No employee should be made to go back to work until symptoms are resolved. If a person shows more serious symptoms (nausea, vomiting, dizziness, confusion, fainting) they should not work again that day. Workers who wear double-layered, heavy, impermeable or non-breathable clothing, or personal protective equipment (PPE) are at greater risk of heat illness and need more frequent breaks. PPE should be removed during rest breaks.

Who is at greatest risk of heat illness? Workers who are older, overweight or obese, unacclimatized, pregnant, have health conditions such as diabetes or cardiovascular disease, consume illicit drugs or alcohol, take certain medications, have had heat illness before, or wear types of clothes or PPE that trap heat.

NIOSH has developed a recommended **work/rest schedule** (see pages 57-58).

•Acclimatization. Develop a written acclimatization plan. New workers and any workers who have not worked in the heat for a week or more must be allowed time to become gradually accustomed to working in higher temperatures. The acclimatization period should last between 7 and 14 days. NIOSH recommends the following acclimatization schedules for physically fit workers:

- Workers who have previous experience in the job: **no more** than 50% of the usual duration of work in the heat on day 1, 60% on day 2, 80% on day 3, and 100% on day 4.
- New workers: **no more** than 20% of the usual duration of work in the heat on day 1, increasing by no more than 20% each day.

Individuals who are not fit may need about **50% more time** to acclimatize. When acclimatizing workers, you must also consider each person's personal risk factors (see *Who is at greatest risk of heat illness* on page 2), the type of clothing they wear, and changes in weather.

•Toilet and handwashing facilities. The Field Sanitation Standard also **requires**:

- One toilet facility and one handwashing facility **per twenty (20)** employees or fraction thereof.
- They must be accessibly located; toilets and handwashing facilities must also be in close proximity to each other.
- They must be located within a one-quarter-mile walk of each hand laborer's place of work in the field.

Besides protecting from the spread of disease, having adequate toilet facilities ensures that employees are able to drink water and hydrate as needed throughout the day. For more details see OSHA's Field Sanitation Standard (CFR 1928.110).

• **Training in prevention and response.** It is important to train your employees, **including supervisors,** on how to prevent and respond to heat-related illness. Training should be provided before temperatures reach high levels and reminders should be provided on hot days. Training should include a discussion of the causes of heat illness; the importance of water consumption, shade, rest and acclimatization; the added risk caused by certain types of clothing and PPE; how to recognize early signs of heat illness and how to monitor others for symptoms; the importance of reporting symptoms of heat illness to a supervisor; how to respond when they or a coworker show symptoms; how to provide first aid; when and how to call an ambulance; the employer's heat emergency response plan; how to bring unsafe conditions to management's attention; the protections to which workers are entitled in the workplace; and how to make a safety complaint to OSHA. Training should be provided in a language the employees understand.

Train supervisors on how to acclimatize workers, how to ensure workers are receiving sufficient water and rest breaks, what to do when someone shows signs of heat illness; how to respond to an emergency, and how to monitor and respond properly to weather reports and heat advisories. Keep records of both employee and supervisor trainings.

• **Monitoring and communication.** Develop a written plan for monitoring employees for signs of heat illness. This should include both supervisor monitoring and a "buddy system" by which employees are assigned to keep an eye on one or more fellow employees for early symptoms of heat illness, and ensure that such employees are evaluated and, if necessary, promptly provided first aid and medical attention. Ensure that someone in every work area has a means of calling for help if an employee becomes ill (cell phone, radio, etc.) Ensure that no employee is left working alone out of sight. Train all supervisors and employees in monitoring and communication.

• **Heat illness prevention plan.** Develop a written plan for heat illness prevention and designate a properly trained on-site supervisor or other individual with authority to ensure its implementation. This should be a plan for providing at least the protections mentioned above (water, shade, rest, acclimatization, provision of toilet and handwashing facilities, training, monitoring and communication). As stated previously, train all employees and supervisors on the elements of the plan.

• **Emergency response plan.** Develop a written plan on how to respond to an emergency involving heat illness. Train all employees (including supervisors) on how to execute the emergency response plan. The plan should include procedures for:

- ❖ First aid for different types of heat illness
- ❖ Communications in case of a heat emergency
- ❖ Ensuring emergency medical services (EMS) will be called when necessary
- ❖ Ensuring EMS will be provided appropriate directions to locate the site of the emergency
- ❖ Transporting employees to an area where they can be reached by EMS if necessary
- ❖ Maintaining all necessary first aid supplies and communications equipment readily available to employees to ensure a timely response

State standards

The following is a summary of existing state heat standards as of December 2022. For full details and the latest requirements, consult with your state's occupational safety and health agency or federal OSHA's local office.

Please note: States may also have requirements concerning **whether rest breaks must be paid**. Consult with your state's department of labor regarding the rules in effect in your state.

- **California.** California's heat standard (T8 CCR 3395) requires employers to provide shade at all times when the temperature is **over 80°F**. At temperatures below 80 °F, employers must provide timely access to shade upon an employee's request if it is not already available. The standard also covers procedures for cool-down breaks, monitoring employees with symptoms of heat illness, acclimatization, worker and supervisor training, and a heat illness response plan. Employers must implement high heat procedures when the temperature **exceeds 95°F**, which triggers additional requirements for rest break schedules, communications, monitoring, and review of high heat procedures during pre-shift meetings, among other provisions. California also has its own Field Sanitation Standard (T8 CCR 3457).

- **Colorado.** The Colorado heat standard is part of the state's Agricultural Labor Conditions Rules (7 CCR 1103-15) and takes effect on days when the temperature is or is forecasted to be **80°F or higher.** It has provisions regarding drinking water, shade, and breaks for drinking and restroom use. When the daily high or measured temperature is **at least 95°F**, increased risk procedures are in effect, and employers must give employees a break of at least 10 minutes every two hours and inform them of their rights under the rule. The rule also has provisions for unacclimatized employees, employees wearing PPE, communications, monitoring, emergency response, preventative measures and training.

- **Oregon.** The provisions of Oregon's heat standard (OAR 437-002-0156) are in effect when the **heat index is 80°F or above**. It has requirements concerning drinking water and other beverages, shade, emergency medical plans, acclimatization plans, heat illness prevention plans, and supervisor & employee training. A **heat index of 90°F or above** triggers a requirement for high-heat practices concerning rest break schedules, communications, monitoring and emergency response. Oregon's Agricultural Labor Housing and Related Facilities standard (OAR 437-004-1120) also contains requirements concerning heat illness prevention and response.

- **Washington.** The temperature action levels in Washington's heat standard are based on the type of clothing worn by employees (non-breathable: **52°F**; double-layer woven clothes **77°F**; all other clothing **89°F**). It includes requirements concerning drinking water, shade, paid cool-down rest periods, acclimatization, heat illness response, heat exposure safety programs, and supervisor and employee training. Additional requirements concerning rest breaks, communications and employee monitoring come into effect when the temperature is **89°F** or above.

Informational resources

For employees:

- **Farmworker Justice.** ***How Can We Protect Ourselves from Heat Stress at Work? Student Handbook***. https://www.farmworkerjustice.org/resource/heat-safety-training-toolkit/
- **OSHA. Heat Illness Prevention.** https://www.osha.gov/heat/worker-information

For employers:

- **NIOSH.** ***Heat Stress: Work/Rest Schedules.*** https://www.cdc.gov/niosh/mining/UserFiles/works/pdfs/2017-127.pdf
- **NIOSH.** ***Criteria for a Recommended Standard: Occupational Exposure to Heat and Hot Environments.*** https://www.cdc.gov/niosh/docs/2016-106/pdfs/2016-106.pdf?id=10.26616/NIOSHPUB2016106
- **OSHA.** ***General Duty Clause.*** https://www.osha.gov/laws-regs/oshact/section5-duties
- **OSHA.** ***Field Sanitation Standard*** (29 CFR 1928.110). https://www.osha.gov/laws-regs/regulations/standardnumber/1928/1928.110
- **OSHA.** ***Heat.*** https://www.osha.gov/heat-exposure
- **California**
  - ***Heat Standard*** (T8 CCR 3395). https://www.dir.ca.gov/title8/3395.html
  - ***Cal/OSHA. Heat Illness Prevention*** (Resources). https://www.dir.ca.gov/dosh/heatillnessinfo.html
- **Colorado**
  - ***Heat Standard*** (part of Agricultural Labor Conditions Rules; 7 CCR 1103-15). https://cdle.colorado.gov/sites/cdle/files/7%20CCR%201103-15%20%20Agricultural%20Labor%20Conditions%20Rules.pdf
- **Oregon**
  - ***Heat Standard*** (OAR 437-002-1131). https://secure.sos.state.or.us/oard/view.action?ruleNumber=437-004-1131
  - ***Agricultural Labor Housing & Related Facilities Standard*** (OAR 437-004-1120). https://secure.sos.state.or.us/oard/view.action?ruleNumber=437-004-1120
  - ***Heat Stress.*** (Resources). https://osha.oregon.gov/pages/topics/heat-stress.aspx
- **Washington**
  - ***Heat Standard*** (WAC 296-307-097). https://lni.wa.gov/safety-health/safety-rules/chapter-pdfs/WAC296-307.pdf#WAC_296_307_097
  - ***Be Heat Smart! Your Outdoor Heat Safety Program*** (Resources). https://lni.wa.gov/safety-health/safety-training-materials/workshops-events/beheatsmart

Source: NIOSH. https://www.cdc.gov/niosh/mining/UserFiles/works/pdfs/2017-127.pdf

Sample Work/Rest Schedule for Workers Wearing Normal Clothing*

The NIOSH work/rest schedule is based on air temperature, with adjustments for direct sunlight and humidity. It may not be applicable to all worksites. Other work/rest schedules are available, some of which are based on Wet Bulb Globe Temperature.

See reverse for temperature adjustments for the NIOSH work/rest schedule and examples of light, moderate, and heavy work.

Temperature (°F)	Light Work Minutes Work/Rest	Moderate Work Minutes Work/Rest	Heavy Work Minutes Work/Rest
90	Normal	Normal	Normal
91	Normal	Normal	Normal
92	Normal	Normal	Normal
93	Normal	Normal	Normal
94	Normal	Normal	Normal
95	Normal	Normal	45/15
96	Normal	Normal	45/15
97	Normal	Normal	40/20
98	Normal	Normal	35/25
99	Normal	Normal	35/25
100	Normal	45/15	30/30
101	Normal	40/20	30/30
102	Normal	35/25	25/35
103	Normal	30/30	20/40
104	**Normal**	**30/30**	**20/40**
105	Normal	25/35	15/45
106	45/15	20/40	Caution
107	40/20	15/45	Caution
108	**35/25**	**Caution**	**Caution**
109	30/30	Caution	Caution
110	15/45	Caution	Caution
111	Caution	Caution	Caution
112	Caution	Caution	Caution

Things you need to know:

- Continuous work in the heat is not advisable—you must take rest breaks periodically to allow your body to cool down.
- A variety of work/rest schedules are available that can be adapted to your worksite. Relying on self-pacing alone may not be sufficient.

Example

A worker performing heavy work in 104 °F temperatures should work for 20 minutes and rest for 40 minutes.

Example

A worker performing moderate work at 108 °F should use extreme caution! The risk for heat injury is high in this situation.

* From NIOSH Criteria for a Recommended Standard, Occupational Exposure to Heat and Hot Environments, https://www.cdc.gov/niosh/docs/2016-106/pdfs/2016-106.pdf. **Assumptions:** workers are physically fit, well-rested, fully hydrated, under age 40, and environment has 30% humidity and perceptible air movement.

HEAT STRESS Work/Rest Schedules

Temperature Adjustments for this Work/Rest Schedule

Adjust the temperature in the table based on:

Environmental conditions	AND	Humidity
• Full sun (no clouds): Add 13 °F • Partly cloudy/overcast: Add 7 °F • No shadows visible, in the shade, or at night: No adjustment		• 40% humidity: Add 3 °F • 50% humidity: Add 6 °F • 60% humidity or more: Add 9 °F

Example Adjustment

Conditions at a mine are 90 °F, with partly cloudy skies and 50% humidity. Adjust the table as follows:

Add 7 °F for partly cloudy skies and 6 °F for 50% humidity, to arrive at 103 °F.

Photo by ©Thinkstock

Examples of Work at Different Intensity Levels

Light work

- Operating equipment
- Inspection work
- Walking on flat, level ground
- Using light hand tools (wrench, pliers, etc.). However, this may be moderate work depending on the task
- Travel by conveyance

Moderate work

- Jack-leg drilling
- Installing ground support
- Loading explosives
- Carrying equipment/supplies weighing 20–40 pounds
- Using hand tools (shovel, fin-hoe, scaling bar) for short periods

Heavy work

- Climbing
- Carrying equipment/supplies weighing 40 pounds or more
- Installing utilities
- Using hand tools (shovel, fin-hoe, scaling bar) for extended periods

Case Study: Use of Work/Rest Schedule

A crew was shoveling ore out from under the primary conveyor at a surface mine in Arizona in August. The high temperature that day was 113 °F. The crew was rotating in 10-minute shifts and hydrating between shifts. Coworkers noticed signs of heat illness in two employees, and they were transferred to the medical station for evaluation. From there they were sent to the hospital, where they were given IV saline and released home. Both employees recovered after rehydration at the hospital.

Lessons Learned

In extreme heat, even a work/rest schedule may not eliminate the risk of heat illness. In this case, use of work/rest schedules, frequent hydration, and team monitoring helped keep this situation from becoming even more serious. Without those safety precautions the workers could have potentially suffered more severe heat illness, possibly including heat stroke, which is life threatening.

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

DHHS (NIOSH) Publication No. 2017-127

FIELD SANITATION STANDARD

Requirements of the Federal Law

Employers with 11 or more employees in the field are obligated by this rule to provide:

Water to drink

- Must be accessible to workers and within ¼ of a mile of where they work.
- Must be cold and in enough quantities.
- There must be disposable water cups.
- Containers must be well-covered, clean, and filled whenever necessary.

Bathrooms

- Accessible to workers and within a ¼ mile from where they work.
- One bathroom per 20 employees.
- Clean and in good condition.
- Wastewater must be eliminated in a safe and healthy manner.
- Must be ventilated and private.
- Doors may be locked from inside.

Facilities for handwashing

- Accessible and close to the bathrooms.
- Must have enough potable water.
- Soap, and disposable towels.

Some states have rules with more protections.

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JUSTICIA CAMPESINA

Dec 2022

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.

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JUSTICIA CAMPESINA

Dec 2022

OSHA WHISTLEBLOWER PROTECTIONS

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

How to submit a whistleblower complaint to 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/whistleblower/WBComplaint
3. **Fax or email**: Fax or email the completed 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.

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

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Workplace Safety and Health for Farmworkers

Heat Illness: Training Curriculum for Lay Health Educators

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