



High temperatures combined with humidity can be extremely hazardous, leading to life threatening illness. Heat-related illnesses are preventable, if you take the necessary precautions.

## Before Excessive Heat Situations

- **Stay informed.**
  - Monitor for heat advisories in your area at the NOAA National Weather Service. <http://www.weather.gov/>
  - Listen to local news and weather channels for health and safety updates.
- **Know the terminology.**
  - **Excessive Heat Advisory:** An excessive heat event is occurring; prolonged exposure or strenuous activity might result in a heat-related illness.
  - **Excessive Heat Warning:** Life-threatening heat is occurring. Take precautions immediately!
- **Discuss heat precautions with your family.**
  - Limit or avoid activity during the day.
  - Keep hydrated.
  - Know the signs of heat-related illnesses.
- **Be aware of high risk individuals in your neighborhood.**
  - Young children, the elderly, people with illness or chronic disease, or that are overweight.

## During Excessive Heat Situations

- **Monitor family members and others for heat-related illnesses.**
- **Stay inside and stay cool.**
  - Air-conditioning is the number one protective factor against heat-related illness and death.
  - If air conditioning is not available, spend time in public places that are air-conditioned (e.g., library, malls, and theaters).
- **Drink plenty of fluids.**
  - Drink 2-4 glasses of cool fluids (water, sports drinks) each hour.
  - Avoid drinks containing alcohol, caffeine, or large amounts of sugar – these actually cause you to lose more body fluid.
- **Eat small, but frequent meals.**
  - Avoid hot foods and heavy meals; they add heat to your body.
- **If you must be outdoors,**
  - Limit activities to morning and evening hours.
  - Avoid strenuous activities.
  - Wear lightweight, light-colored, loose-fitting clothing.
  - Wear a wide-brimmed hat, sunglasses and sunscreen that is SPF 15 or higher.
  - Take frequent breaks in the shade or in a cool environment.

- **Never leave children in a parked car.**
  - Each year children die from extreme heat after being left in parked vehicles.
  - Cars can heat up to dangerous temperatures very quickly – even within minutes.

## Heat-Related Illnesses

- **Heat stroke is a life-threatening situation!**
  - Occurs when the body is unable to regulate its temperature and cool itself.
  - Signs: extremely high body temperature (above 103°)
    - red, hot, dry skin (no sweating)
    - rapid, strong pulse
    - throbbing headache
    - dizziness
    - nausea
    - confusion
    - unconsciousness
  - **If you see any of these signs, get medical assistance immediately!**
- **Heat exhaustion.**
  - A milder form of heat-related illness that can develop after several days of exposure to high temperatures and inadequate or unbalanced replacement of fluids.
  - **Signs:** cool, moist, pale or flushed skin • heavy sweating • headache • nausea • dizziness • weakness
  - Cool the victim by: providing cool, nonalcoholic beverages
    - rest in a cool or air-conditioned environment
    - cool shower, bath, or sponge bath
  - If the person vomits or begins to lose consciousness, **get medical assistance immediately!**
- **Heat cramps.**
  - Muscle pains or spasms (usually in the legs or abdomen) that occur in association with loss of fluids and electrolytes.
  - Often an early sign the body is having trouble with heat.
- **Sunburn.**
  - Damage to the skin that significantly slows the skin's ability to release heat.
  - Usually minor discomfort that heals in a week.
  - Severe sunburn may require medical attention.
- **Heat rash.**
  - Skin irritation caused by excessive sweating during hot, humid weather.
  - Red cluster of pimples or small blisters; usually on the neck, chest, or folds of the skin.
  - Most common in young children; can affect any age.
  - Usually does not require medical assistance.

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During the summer, workers may perform more job tasks outdoors. This exposure to high temperatures and humidity can lead to life-threatening heat related illnesses. Heat-related illnesses are preventable. Protect your employees by following these suggestions.

## Before Excessive Heat Situations

- **Stay informed.**
  - Monitor for heat advisories in your area at the NOAA National Weather Service. <http://www.weather.gov/>
  - Listen to local news and weather channels during extreme heat conditions for health and safety updates.
- **Know the terminology.**
  - **Excessive Heat Advisory:** An excessive heat event is occurring; prolonged exposure or strenuous activity might result in a heat-related illness.
  - **Excessive Heat Warning:** Life-threatening heat is occurring. Take precautions immediately!
- **Discuss heat precautions with your employees.**
  - Limit or avoid activity during the day.
  - Keep hydrated; drinking at least every 15 minutes.
  - Wear wide-brimmed hats for protection from the sun.
  - Wear sunscreen with SPF 15 or higher.
  - Dress in lightweight, loose-fitting, light-colored clothing.
  - Train employees to recognize the signs of heat illness.
- **Establish shade or cooling areas for your employees.**
  - Set up awnings or canopies, if natural shade is not available.
- **Prepare for power outages.**
  - High summertime temperatures increase energy demand for cooling; overloaded energy systems can result in power outages.
  - For more information see the Power Outage handouts in this manual.
- **Prepare your facilities.**
  - Maintain your air conditioning system to ensure it is able to work when you need it most.
  - Check air-conditioning ducts for proper insulation.
  - Window air conditioners should be installed snugly and insulated, if necessary.
  - Weather-strip doors and windows to keep cool air in.
  - Cover windows that receive morning or afternoon sun with drapes, shades, awnings, or louvers.
  - Use electric or ceiling fans to improve ventilation and comfort.

## During Excessive Heat

- **If employees work outdoors,**
  - Schedule work during the morning and late-afternoon hours.
  - Avoid strenuous activities outdoors, especially mid-day.
  - Adjust work schedules to provide workers with breaks in the shade or an air-conditioned area.
  - Postpone nonessential tasks.
  - Make sure employees drink plenty of water, frequently.

## Heat-Related Illnesses

- **Heat stroke is a life-threatening situation!**
  - Occurs when the body is unable to regulate its temperature and the body is unable to cool itself.
  - **Signs:** extremely high body temperature (above 103°F)
    - red, hot, and dry skin (no sweating)
    - rapid, strong pulse
    - throbbing headache
    - dizziness
    - nausea
    - confusion
    - unconsciousness
  - **If you see any of these signs, get medical assistance immediately!**
- **Heat exhaustion.**
  - A milder form of heat-related illness that can develop after several days of exposure to high temperatures and inadequate or unbalanced replacement of fluids.
  - **Signs:** cool, moist, pale or flushed skin
    - heavy sweating
    - headache
    - nausea
    - dizziness
    - weakness
  - Cool the victim by: providing cool, nonalcoholic beverages
    - rest in a cool or air-conditioned environment
    - cool shower, bath, or sponge bath
  - If the person vomits or begins to lose consciousness, **get medical assistance immediately!**
- **Heat cramps.**
  - Muscle pains or spasms (usually in the legs or abdomen) that occur in association with loss of fluids and electrolytes following strenuous activity.
  - Often an early sign the body is having trouble with heat.
- **Sunburn.**
  - Damage to the skin that significantly slows the skin's ability to release heat.
  - Usually minor discomfort that heals in a week.
  - Severe sunburn may require medical attention.
- **Heat rash.**
  - Skin irritation caused by excessive sweating during hot, humid weather.

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Farm tasks generally require outdoor activities. Working in hot and humid conditions increases the risk of life-threatening heat-related illnesses. Take measures to protect yourself and others on your farm during extreme heat situations.

## Before Excessive Heat Situations

- **Stay informed.**
  - Monitor for heat advisories in your area at the NOAA National Weather Service. <http://www.weather.gov/>
  - Listen to local news and weather channels during extreme heat conditions for health and safety updates.
- **Know the terminology.**
  - **Excessive Heat Advisory:** An excessive heat event is occurring; prolonged exposure or strenuous activity might result in a heat-related illness.
  - **Excessive Heat Warning:** Life-threatening heat is occurring. Take precautions immediately!
- **Discuss heat precautions with those that work on your farm.**
  - Limit or avoid activity during the day.
  - Keep hydrated; drinking at least every 15 minutes.
  - Train workers on how to minimize heat stress and to recognize the signs of heat illness.
- **Establish shade or cool areas on your farm.**
  - Designate areas for workers to go to cool off.
  - Set up awnings, canopies, if natural shade is not available.
  - Provide sources of water.
- **Prepare for power outages.**
  - High summertime temperatures increase energy demand for cooling; overloaded energy systems can result in power outages.
  - For more information see the Power Outage handouts in this manual.

## During Excessive Heat Situations

- **If you (or farm workers) must be outdoors**
  - Limit activities to the morning and evening hours; avoid mid-day.
  - Avoid strenuous activities.
  - Take frequent breaks (10-20 minutes each hour), preferably in shade or an air conditioned area.
  - Drink 1-2 quarts of cool water every hour; avoid ice cold water as this can cause stomach cramps.
  - Wear lightweight, light-colored, loose-fitting clothing.
  - Wear a wide-brimmed hat, sunglasses and sunscreen that is SPF 15 or higher.

- **Encourage workers to ensure use a “buddy system” while working**
  - Ensure adequate water consumption.
  - Alternate work load between strenuous and light tasks.
  - Detect early signs of heat-related illnesses.

## Heat-Related Illnesses

- **Heat stroke is a life-threatening situation!**
  - Occurs when the body is unable to regulate its temperature and cool itself.
  - **Signs:** extremely high body temperature (above 103°F) • red, hot, and dry skin (no sweating) • rapid, strong pulse • throbbing headache • dizziness • nausea • confusion • unconsciousness
  - **If you see any of these signs, get medical assistance immediately!**
- **Heat exhaustion.**
  - A milder form of heat-related illness that can develop after several days of exposure to high temperatures and inadequate or unbalanced replacement of fluids.
  - Signs: cool, moist, pale or flushed skin • heavy sweating • headache • nausea • dizziness • weakness
  - Cool the victim by providing cool, nonalcoholic beverages • rest in a cool or air-conditioned environment • cool shower, bath, or sponge bath • lightweight clothing
  - If the person vomits or begins to lose consciousness, get medical assistance immediately!
- **Heat cramps.**
  - Muscle pains or spasms (usually in the legs or abdomen) that occur in association with loss of fluids and electrolytes following strenuous activity.
  - Often an early sign that the body is having trouble with heat.
- **Sunburn.**
  - Damage to the skin that significantly slows the skin’s ability to release heat.
  - Usually minor discomfort that heals in a week.
  - Severe sunburn may require medical attention.
- **Heat rash.**
  - Skin irritation caused by excessive sweating during hot, humid weather.
  - Red cluster of pimples or small blisters.
  - Most common on the neck, upper chest, or folds of the skin (e.g., elbow creases).

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Air conditioning is the number one protective factor against heat related illness and death. Ensure your home is ready to provide the necessary cool, protective environment you will need during extreme heat situations.

## Before Excessive Heat Situations

- **Prepare your air conditioning system.**
  - Keep your air conditioner maintained properly; this will ensure it is able to work when you need it most.
  - Have your air conditioning system checked each year.
  - Check air-conditioning ducts for proper insulation.
  - Install window air conditioners snugly; insulate if necessary.
  - Keep your air conditioner in the shade. If your air conditioner is already in the sun, you can build a wood shade screen for it — but do not block the air flow.
- **Prepare your home.**
  - Weather-strip doors and windows to keep the cool air inside your home.
  - Install temporary window reflectors (e.g., aluminum foil-covered cardboard) to reflect heat back outside.
  - Cover windows that receive morning or afternoon sun with drapes, shades, awnings, or louvers; this can reduce the heat that enters a home by up to 80 percent.
  - Keep storm windows up all year.
- **Prepare for power outages.**
  - High summertime temperatures increase energy demand for cooling; overloaded energy systems can result in power outages.
  - For more information see the Power Outage handouts in this manual.

## During Excessive Heat Situations

- **Reduce indoor heat.**
  - Close window coverings on the west side of the home to keep out the hot afternoon sun.
  - Cool only the rooms you use, but do not close all your vents - closing too many vents actually reduces operating efficiency.
  - Run the oven, dishwasher, washing machine and clothes dryer early in the morning or later in the evening to reduce adding heat during the hottest part of the day.
- **If you do not have an air conditioner,**
  - **Daytime:** Open at least two windows and place a fan in the window so it blows air out of the house; this will create airflow through the house
  - **Nighttime:** Turn the fan around to draw cooler air into the house.
- **Improve ventilation.**
  - Use a small electric fan to improve ventilation and comfort.
  - Use ceiling fans to circulate air.

## After Excessive Heat Situations

- **Home improvements can make your home more prepared for extreme heat events.**
  - Use landscaping to provide shade for west-facing walls.
  - Consider replacing old windows. Storm or dual-glazed windows can reduce heat gain by as much as 50 percent.
  - Install additional insulation, which can help keep heat out in the summer as well as keep heat in during the winter months.
  - Use attic fans to help clear the hottest air from the home.

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Extreme heat situations can be hazardous to your pets. Animals can overheat, suffer dehydration, and even die in hot weather. Heat-related illnesses can be prevented if proper measures are taken.

## Before Excessive Heat Situations

- **Establish cool housing areas.**
  - Establish areas indoors or outdoors for extreme heat situations – cool basement, shade from a tree, doghouse or other shelter to protect from the heat.

## During Excessive Heat Situations

- **Keep pets cool.**
  - Keep animals indoors as much as possible.
  - Use a hose or let your pet swim in a kiddie pool, lake or stream to cool off.
- **Cool water.**
  - Make sure your pet has access to cool, clean water.
  - Check the water bowl frequently throughout the day as pets will drink more during high temperatures.
- **Limit or restrict exercise.**
  - Exercise of any kind should be cut back and limited to the cooler, early morning or later evening hours.
  - Avoid midday heat.
- **Limit sun exposure.**
  - Dogs and cats can get sunburned just like people, especially their ears and noses.
- **Avoid burned pads on your pet's feet.**
  - Avoid walking your dog on hot surfaces, such as pavement, asphalt, or metal.
  - Walk your pet in the grass.
  - **Signs of burned pads:** limping or refusing to walk • licking or chewing at the feet • pads are darker in color • part of the pad is missing
  - If you notice a problem, flush the pad and foot with cool water or a cool compress; get the pet to a grassy area, or if possible carry him.
  - Contact your veterinarian to examine your pet for signs of deeper burns, blisters and possibly infection.
- **Never leave pets in a parked car.**
  - Each year pets die from extreme heat after being left in parked vehicles.
  - Cars can heat up to dangerous temperatures very quickly – even within minutes.

- **Monitor your pet for signs of heat-related illness.**
  - Watch your pet for signs of tiring and too much panting.
  - Brachycephalic breeds (i.e., short-nosed breeds, such as bulldogs and pugs), large heavy-coated breeds, and those dogs with heart or respiratory problems are more at risk for heat stroke.

## Heat-Related Illnesses

- **If you see any of these signs, get veterinary attention immediately!**
- **Heat stroke is a life-threatening situation!**
  - Occurs when the body is unable to regulate its temperature and cool itself.
  - **Signs:** extremely high body temperature (above 104-110°F) • excessive panting • dark or bright red tongue and gums • sticky or dry tongue and gums • staggering, stupor, seizures • bloody diarrhea or vomiting • nausea • unconsciousness
  - Pets can go into a coma or die from heat stroke.
- **Heat stress.**
  - A milder form of heat-related illness that can develop after several days of exposure to high temperatures and inadequate or unbalanced replacement of fluids.
  - **Signs:** heavy panting • glazed eyes • rapid pulse • unsteadiness or staggering • vomiting • weakness
- **Sunburn.**
  - Animals with pink skin are at great risk of sunburn.
- **Actions to take:**
  - Contact your veterinarian immediately!
  - Move pet to a shaded/air conditioned area.
  - Apply ice packs or cold towels to your pet's head, neck, and chest.
  - Do not cool your pet too quickly.
  - Let your pet drink small amounts of cool water or lick ice cubes, but do not force ice or water to your pet.

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Extreme heat situations can be hazardous to your livestock, horses and poultry. Reduced production, heat-related illnesses, even death can occur. Protect your animals during extreme heat situations.

## Before Excessive Heat Situations

- **Establish cool housing or shaded areas.**
  - Adequate shade is important and can be provided by trees, buildings or sunshades.
  - Ensure building roofs are high enough to allow for air movement.
- **Prepare access to water.**
  - Animals will require more water during extreme heat conditions – up to twice as much as normal.
  - Ensure animals always have access to cool, clean water.
  - Shade above ground water lines or tanks to keep water cool.
  - Additional watering tanks may be necessary; if possible provide these in advance so animals can become used to multiple water sources.
- **Improve ventilation.**
  - Install fans, open windows, front of stalls or roof ventilation to increase air movement in buildings.
  - Cut tall vegetation 150 ft back from perimeter of holding pens.
  - Consider building earth mounds to minimize bunching of animals.
  - Increase floor space per animal or reduce the number of animals in an area.
- **Prepare for power outages.**
  - High summertime temperatures increase energy demand for cooling; overloaded energy systems can result in power outages.
  - For more information, see the Power Outage handouts in this manual.

## During Excessive Heat Situations

- **Provide cool, clean water.**
  - Check water delivery systems periodically for plugs or other problems.
  - Monitor the water temperature and keep it cool.
  - If possible, keep in a shaded area.
- **Keep animals cool.**
  - Spray with oscillating sprinklers; water can have a cooling effect for animals.
  - Run water on the ground to keep hooves cooled.
  - Run water across roofs of buildings where animals are housed to cool the area.

- **Control biting insects.**
  - Flies and other insects are more active in warm weather; animals may increase their activity trying to avoid these insects and risk overheating.
  - Reduce insect breeding areas by:
    - Removing weeds/brush
    - Removing standing pools of water or mud
    - Removing manure
- **Feed later in the day**
  - Do not feed animals during the hottest periods of the day.
  - Shift feeding toward the evening after peak day temperature.
  - Cover feed bunks to prevent spoilage from heating in the sun.
- **Avoid or limit handling of animals.**
  - Processing or working animals can elevate body temperature.
  - Avoid handling during mid-day.
  - If animal must be handled, work them early in the morning (prior to 8 AM – not after 10 AM) and if possible in a shaded facility or area.
  - Ship animals at night or early morning (e.g., arrival time before 7 AM).
  - Cool animals after exercise with sprays of water.

## Heat-Related Illness

- **Monitor your animals frequently for heat-related illness.**
  - Signs of heat stress can be subtle initially, so watch animals closely.
  - Animals with darker fur (e.g., black haired beef cattle) may be more susceptible.
  - **Signs of heat stress:** increased respiration rate or panting
    - excessive salivation
    - elevation of head to make it easier to breathe
    - open mouth breathing
  - If your animals are showing signs of heat stress:
    - Contact your local veterinarian immediately!
    - Move animals to the shade immediately.
    - Offer plenty of cool, clean water.
    - Spray them with cool water, especially on the legs and feet, or stand them in water.
    - Increase air movement around them.
- **Sunburn.**
  - Animals can get sunburned just like people, especially their ears and noses.
  - Animals with pink skin are at greatest risk.

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