

Preparing Your Farm or Ranch for Natural Disasters

Disaster Preparation Guide for Fires, Floods, and Tornadoes



ABOUT THIS GUIDE

Educating young farmers and ranchers about natural disasters, fires, floods, and tornadoes is crucial for many reasons including:

Risk Management: Understanding the risks and early warning signs of natural disasters to help young farmers and ranchers to mitigate potential damage to their crops, livestock, and infrastructure. Knowledge of preparedness strategies can significantly reduce losses.

Safety: Educating young farmers and ranchers ensures they know how to protect themselves, their families, and their workers during emergencies. It can also help them develop evacuation plans and safety protocols, reducing injury and loss of life.

Resilience Building: Training in disaster preparedness fosters resilience, enabling young farmers and ranchers to bounce back quickly after a disaster. This includes knowing how to access emergency resources, insurance, and government aid programs.

Community Support: A knowledgeable farming community is better equipped to support each other during times of disaster. Educated farmers are more likely to collaborate, share resources, and provide assistance when others in the community are affected by natural disasters.

By equipping young farmers and ranchers with the necessary knowledge and skills, they can safeguard their operations, promote sustainability, and contribute to the long-term resilience of the agricultural sector.

This guide can be used to prepare your farm or ranch for fires, floods, and tornadoes. Each section includes a checklist for how you can prevent, prepare for, and safely recover from each type of disaster. You can find documents to help you be prepared for emergencies in the [Helpful Resources](#) section.

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FIRES



BEFORE A FIRE

You can work to prevent fires, and you can also be prepared for one to occur.

PREVENTION

Identify Fire Hazards

- ☐ Regularly inspect all electrical systems and equipment for faults
- ☐ Store flammable materials away from heat sources, in separate buildings if possible
- ☐ Avoid storing machinery or heat sources near flammable materials
- ☐ Keep flammable liquids in approved, labeled containers, and away from ignition sources
- ☐ Make sure storage areas with hay are properly ventilated
- ☐ Maintain machinery to prevent sparks

Firebreaks and Landscaping

- ☐ Create firebreaks around buildings and fields to slow the spread of wildfires
- ☐ Keep grass and weeds trimmed around buildings

Smoking Policies

- ☐ No smoking in and around barns and storage areas

Electrical Safety

- ☐ Use weatherproof electrical outlets and fixtures in barns
- ☐ Repair or replace damaged or exposed wiring
- ☐ Wrap wires in corrosion resistant conduit pipes
- ☐ Use extension cords temporarily
- ☐ Unplug what is not in use
- ☐ Install surge protectors to prevent electrical fires

Safe Use of Heating Equipment

- ☐ Use heating equipment with automatic shut-off features
- ☐ Keep heaters away from flammable materials
- ☐ Regularly clean and maintain heating equipment

PREPARATION

Emergency Plan

- ☐ Develop and regularly update a fire emergency plan
- ☐ Include evacuation routes and meeting points for people and animals
- ☐ Have an emergency plan and conduct regular fire drills

Fire Detection and Suppression

- ☐ Install smoke detectors, fire alarms, and sprinkler systems in all buildings
- ☐ Make sure fire extinguishers are accessible and regularly maintained
- ☐ Know how to use fire extinguishers properly

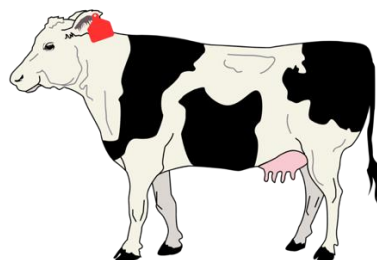


Communication

- ☐ Keep a list of emergency contact numbers (fire department, veterinarian, etc.) easily accessible
- ☐ Quickly alert others in case of a fire

Regular Inspections

- ☐ Conduct regular fire safety inspections of all buildings and equipment
- ☐ Review and update the fire emergency plan annually, or after any significant change



Animal Safety

- ☐ Identify and tag all animals for quick identification during evacuation
- ☐ Keep evacuation equipment (trailers, halters, etc.) in good condition and easily accessible
- ☐ Have a plan for the transportation and temporary housing of animals

Special Circumstance: Harvest Preparation

- ☐ Check weather and fire conditions before harvesting
- ☐ Start harvesting on the downwind side of fields, so if a fire starts it can't spread far
- ☐ Make sure you have a cell phone or satellite phone on hand to call for help
- ☐ Carry a 10lb fire extinguisher in the tractor cab, and a 20lb one mounted on the combine
- ☐ Make sure you are regularly checking and maintaining the fire extinguisher

DURING A FIRE

Activate Fire Alarms and Call Emergency Services

- ☐ Call 911 immediately
 - Give them the exact location, type of structure, and if animals are involved
- ☐ If there are fire alarms, activate them to warn others

Evacuate People and Animals

- ☐ Evacuate all people from the building
 - Make sure they are a safe distance away, at the designated meeting point
- ☐ Evacuate animals if possible
 - Open gates or doors to allow animals to escape, if safe to do so
 - If animals are in barns or buildings, try to guide them to safety
- ☐ Prioritize vulnerable animals, like those that could be trapped in cages, pens, or buildings

Stop Power and Fuel Sources

- ☐ Only do this if it is safe and you can do it quickly
- ☐ Shut off the electricity and any fuel supplies (propane, natural gas, etc.) to the affected structure

Alert Nearby Farms and Neighbors

- ☐ Notify nearby farms and neighbors of the fire

Use Fire Extinguishers

- ☐ If the fire is small and manageable, and you are trained, use a fire extinguisher to control the fire

Monitor the Fire from a Safe Distance

- ☐ Stay a safe distance from the fire, at the designated meeting spot
 - Avoid smoke exposure
 - Avoid obstructing roads that emergency services may need to use

Wait for Emergency Responders

- ☐ Let fire responders take control when they arrive

Conduct a Post-Fire Assessment

- ☐ Once the fire is under control and has been declared safe by fire authorities, assess damages
- ☐ Support any animal rescue efforts as needed

Special Circumstance: Responding to a Combine Fire

- ☐ Move the machine
 - If it is safe, move the combine to an area that has already been harvested
 - Turn off the engine
- ☐ Call for help
 - Dial 911 as soon as possible
 - Provide clear directions for emergency services
- ☐ Contain the fire
 - Do not let it spread to nearby vegetation

AFTER A FIRE

Make Sure Everything is Safe

- ☐ Make sure everyone is safe and accounted for
- ☐ Do not re-enter property until it has been deemed safe by authorities
- ☐ Board up broken windows and doors
- ☐ Cover any holes in the roof to prevent additional water damage

Pasture and Livestock Management

- ☐ Focus on providing food for livestock
 - Plant quick-growing forage crops if needed
 - Use hay if needed

Structure Repair

- ☐ Begin repairing or rebuilding damaged structures
 - Barns, fences, and irrigation systems
 - Only do so after getting approval from insurance company (if applicable)
- ☐ Prioritize essential structures



FLOODS



BEFORE A FLOOD

Water Management Solutions

- ☐ Install drainage water management during the dry season
- ☐ Install sump pumps in buildings where they may be needed
- ☐ Set up water management solutions when flooding is imminent
 - Water gates
 - Water-inflated property protector
 - Flood barrier socks
 - Modular flood prevention

Emergency Plan

- ☐ Develop and regularly update a flood emergency plan, including:
 - ☐ Area warning signals for disasters
 - ☐ Emergency broadcast sources
 - ☐ Farm site map with buildings and structures, access routes, barriers, livestock location, hazardous substances location, electric, gas, and water shutoff locations
 - ☐ Farm inventory
 - ☐ Emergency phone number list

Backup Power and Water Supply

- ☐ Have generators ready to maintain essential operations
- ☐ Charge portable chargers
- ☐ Make sure water storage systems are filled
- ☐ Have back up water supplies, if possible

Evacuation Plan

- ☐ If flooding is likely, pack essentials ahead of time, including:
 - ☐ Medication
 - ☐ Appropriate coats and boots
 - ☐ Chargers for electronics
 - ☐ First aid supplies
 - ☐ Batteries
 - ☐ Flashlights

- ☐ Plan your evacuation route ahead of time

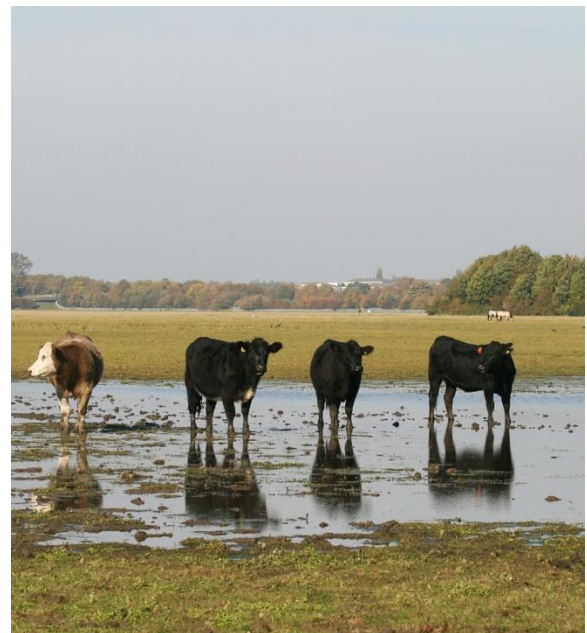
- If you encounter flooded roads:
Turn around, don't drown

Plan for Animals

- ☐ Identify and tag all animals for quick identification
- ☐ If evacuating animals:
 - ☐ Keep evacuation equipment (trailers, halters, etc.) in good condition and easily accessible
 - ☐ Have a plan for the transportation and temporary housing of animals
- ☐ If unable to evacuate, make sure you have extra food and source of clean drinking water to leave with animals

DURING A FLOOD

- ☐ Stay informed
- ☐ Evacuate if needed
- ☐ Turn off utilities at main shutoffs, if possible
- ☐ Open building doors and windows at least 2 inches
- ☐ Move motors and portable electric equipment to a dry location, if possible
- ☐ Leave animals with food and clean drinking water, and open gates so they can escape high water
- ☐ Seal your private well to prevent contamination



AFTER A FLOOD

Make Sure Everything is Safe

- ☐ Make sure everyone is safe and accounted for
- ☐ Wear protective clothing to avoid injuries
- ☐ Do not re-enter property until it has been deemed safe by authorities
- ☐ Board up broken windows and doors
- ☐ Cover any holes in the roof to prevent additional water damage
- ☐ Identify hazards (leaking gas, downed power lines, etc.) and call for help

Pasture and Livestock Management

- ☐ Focus on providing food for livestock
 - Plant quick-growing forage crops if needed
 - Use hay if needed

Structure Repair

- ☐ Begin repairing or rebuilding damaged structures
 - Barns, fences, and irrigation systems
 - Only do so after getting approval from insurance company (if applicable)
- ☐ Prioritize essential structures



TORNADOES

BEFORE A TORNADO

Know the Signs

- Tornadoes can happen at ANY time of the year, but are more likely to happen:
 - Plains (e.g., Texas, Oklahoma, and Kansas): May into early June
 - Gulf Coast: earlier in the spring
 - Northern Plains and Upper Midwest (North and South Dakota, Nebraska, Iowa, Minnesota): June or July
- They can happen at ANY time of day or night, but most occur between 4-9 P.M.
- There are several signs that a storm is likely to produce a tornado:
 - Large hail
 - Dark green or blackish sky color
 - The presence of a rotating wall cloud
 - A loud roar similar to a freight train

Be Aware

- ☐ Know your area's warning signals for tornado watches and warnings
- ☐ Carry a first aid kit with a flashlight and battery-operated radio on all farm equipment, especially those used far from home
- ☐ Carry a cell phone, satellite phone, or portable radio to keep you connected with others

Emergency Plan

- ☐ Develop and regularly update a tornado emergency plan
- ☐ Include emergency shelter spots – the safest place is the interior of a basement or a cellar
- ☐ Identify locations to seek shelter around the farm if a storm comes up quickly
- ☐ Practice tornado drills
- ☐ Maintain an emergency communication plan, to be able to warn people working in the field of pending severe weather
- ☐ Keep an emergency kit with food, water, clothing, footwear, blankets, a first-aid kit, weather radio, and flashlight

Animal Safety

- ☐ Keep an inventory of all animals and their location, and make sure they have proper identification such as ear tags, brands, or tattoos
- ☐ Include alternate power sources and handling equipment in the farm emergency plan, in the event livestock needs to be moved
- ☐ Remove objects that can become flying debris from livestock areas
- ☐ If possible, bring animals into a barn before the storm
- ☐ Never leave animals tied up or restrained outside; open escape routes if possible

DURING A TORNADO

If you are in a Tornado Watch

- ☐ Get your emergency kit ready
- ☐ Make sure everyone on the farm knows that the conditions are right for a tornado
- ☐ Stay as close to buildings as possible
- ☐ Tune into local weather channels to stay in the know
- ☐ Make sure you can hear warning sirens - turn music down!
- ☐ Prepare animals by moving them into barn wells
- ☐ Secure potential hazards like loose materials and equipment

If you are in a Tornado Warning

- ☐ Take shelter immediately!
 - Go to the shelter locations marked in your emergency plan
 - Basements are best
 - A building with a strong inner structure, such as a barn, will do
 - Stay away from outside walls and windows
 - Do NOT stay in a mobile home
- ☐ If you are on the road or in the field:
 - Do NOT try to outrun a tornado in your car or farm equipment
 - Lie flat in a low-lying area like a ditch or culvert, away from trees, and cover your head with your hands
 - Do NOT get under your vehicle or under a bridge
- ☐ If possible, open routes of escape for livestock



AFTER A TORNADO

Make sure Everyone is Safe

- ☐ Make sure everyone is safe and accounted for
- ☐ If anyone is missing, call 911 to report it

Make sure Everything is Safe

- ☐ Survey damage to buildings - do not re-enter property until it has been deemed safe
- ☐ Watch out for damaged power lines, gas lines, or electrical systems, and report them immediately

Clean up Safely

- ☐ Wear sturdy shoes or boots, long sleeves, and gloves
- ☐ Board up broken windows and doors and cover any holes in the roof
- ☐ Gather and dispose of trash, limbs, wire, and damaged equipment

Check the Farm Inventory

- ☐ Account for all livestock and equipment
- ☐ Note any livestock losses
- ☐ Check equipment for damages
- ☐ Report any hazardous materials that have spilled or leaked
- ☐ Take pictures of dead or injured animals for documentation

Care for Livestock

- ☐ Make sure that livestock have food and water
- ☐ Remove any debris that can cause injury
- ☐ Dispose of any dead animals
- ☐ Provide clean, uncontaminated water and food



HELPFUL RESOURCES

EMERGENCY CONTACT FORM

Police	Local/Farm Veterinarian
Fire	State Veterinarian
Ambulance	Cooperative Extension Service
County Emergency Management Office	USDA Farm Service Office
Neighbors	Livestock Shipper
	Milk Hauler
Power Company	Grain Hauler
Gas Company	Fuel Supplier
Water Company	Homeowner's Insurance Policy Company: Policy Number:
Disaster Hotline	Farm Insurance Policy Company: Policy Number:
County Public Health Department	Flood Insurance Policy Company: Policy Number:
Poison Control Center	Wind and/or Hail Insurance Policy Company: Policy Number:

EMERGENCY KIT SUPPLIES

Basic Disaster Supplies Kit

- ☐ Water (one gallon per person per day)
- ☐ Food (non-perishable)
- ☐ Battery-powered or hand crank radio and a NOAA Weather Radio with tone alert
- ☐ Flashlight
- ☐ First aid kit
- ☐ Extra batteries
- ☐ Whistle
- ☐ Dust mask
- ☐ Plastic sheeting
- ☐ Scissors
- ☐ Duct tape
- ☐ Moist towelettes
- ☐ Garbage bags
- ☐ Plastic ties
- ☐ Wrench or pliers
- ☐ Manual can opener
- ☐ Local maps
- ☐ Cell phone with chargers and a backup battery

Additional Emergency Supplies

Add these items in as needed.

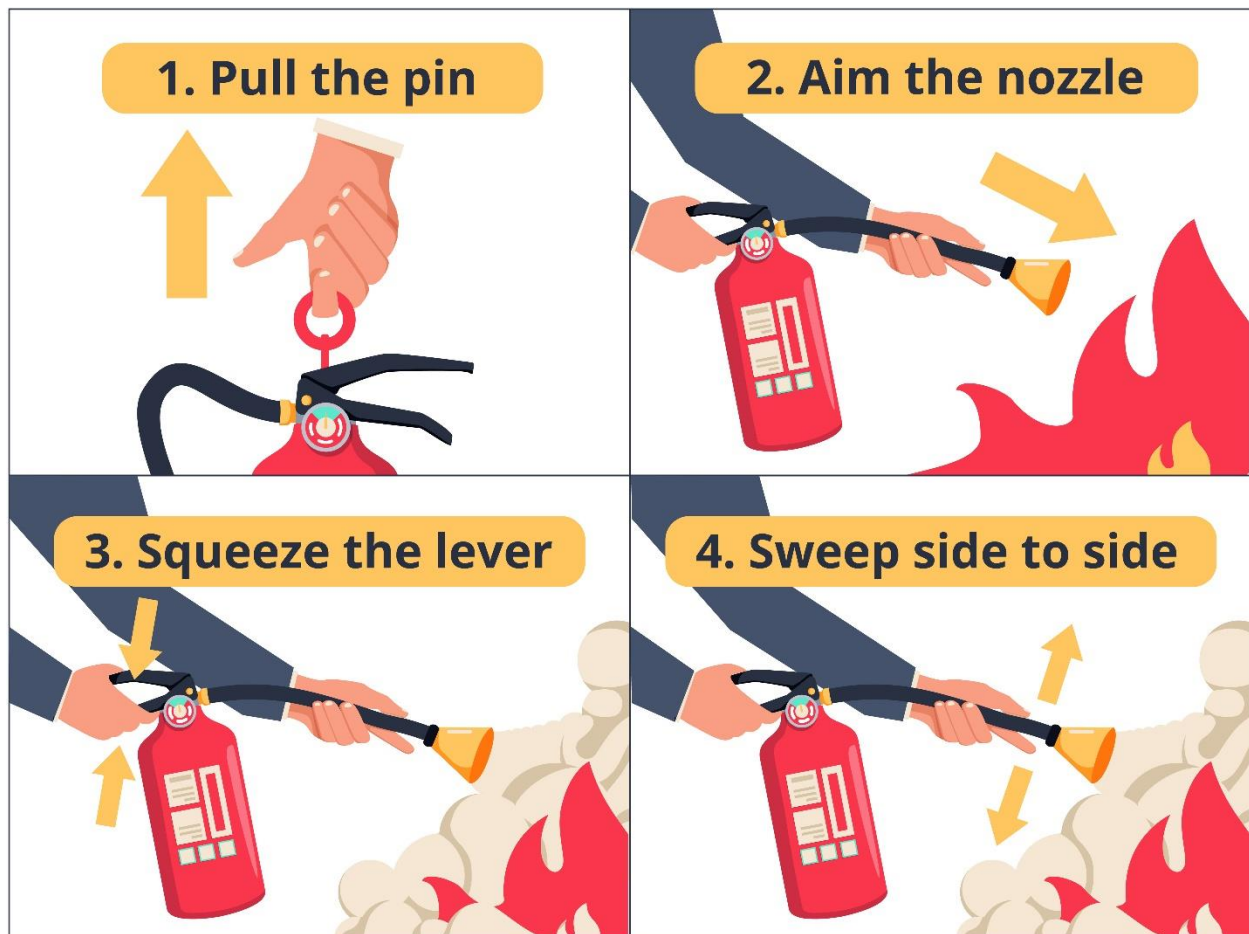
- ☐ Soap
- ☐ Hand sanitizer
- ☐ Disinfecting wipes
- ☐ Prescription medications
- ☐ Non-prescription medications
- ☐ Prescription glasses
- ☐ Contact lens solution and case
- ☐ Infant formula, bottles, diapers, wipes, and diaper rash cream
- ☐ Pet food and extra water
- ☐ Cash or traveler's checks
- ☐ Sleeping bag for each person
- ☐ Important family documents (copies of insurance policies, ID, bank account records, saved electronically or in a waterproof container)
- ☐ Complete change of clothing, including shoes
- ☐ Fire extinguisher
- ☐ Waterproof matches
- ☐ Feminine hygiene products
- ☐ Disposable plates, bowls, utensils, and paper towels
- ☐ Paper and pencil
- ☐ Activities for children

Information from: Federal Emergency Management Agency. (2025). Build A Kit. Ready.gov. Retrieved from <https://www.ready.gov/kit>

HOW TO USE A FIRE EXTINGUISHER

REMEMBER:

- **SAFETY FIRST:** Only attempt to extinguish a fire if it is small, contained, and you have a clear escape route.
- **USE THE RIGHT EXTINGUISHER:**
 - Class A: a fire started with normal combustibles such as wood, paper, and cloth.
 - Class B: a fire started with flammable and combustible liquids and gases such as gasoline and paints.
 - Class C: a fire started by energized electrical equipment such as power transmission cables or wiring.
 - Class D: a fire started by flammable metals such as sodium, potassium, and lithium.
 - Class K: a fire started by cooking oils, animal fats, or grease (kitchen fires).
- **PERFORM MAINTENANCE:** Inspect fire extinguishers regularly and have them serviced or recharged as needed



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