
Planning – Identification – Evacuation – Return



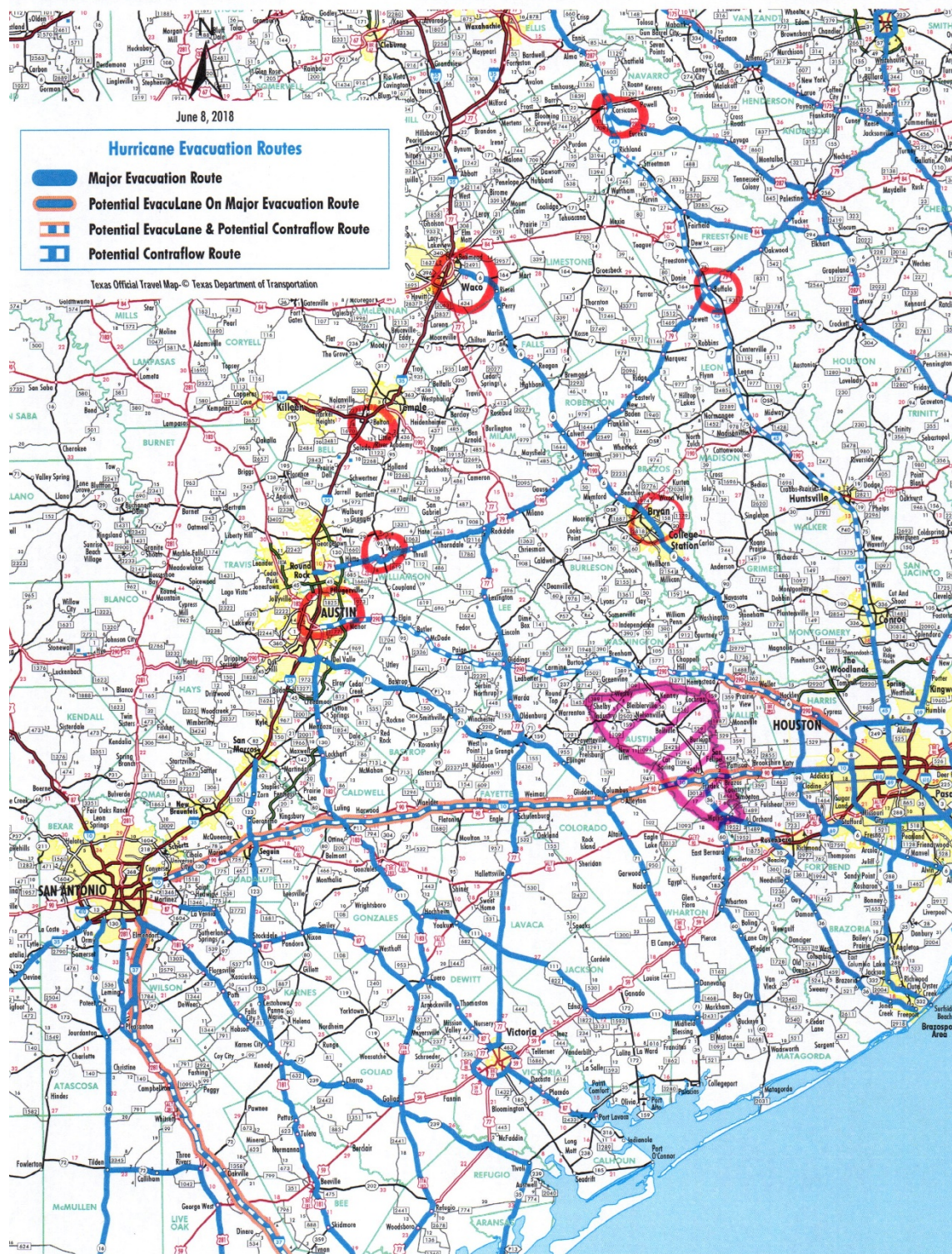
LIVESTOCK HURRICANE PREPAREDNESS GUIDE

Texas A&M AgriLife Extension Service—Austin County

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Planning & Preparation

Livestock – Hurricane Preparedness Guide



Livestock - Hurricane Preparedness Guide

Exposition Centers

REMEMBER TO CALL BEFORE YOU HAUL!!!

1. Travis County Exposition Center
 - a. **Address:** 7311 Decker Ln, Austin, TX 78724
 - b. **Phone:** [\(512\) 854-4900](tel:(512)854-4900)
2. Bell County Expo Center
 - a. **Address:** 301 W Loop 121, Belton, TX 76513
 - b. **Phone:** [\(254\) 933-5353](tel:(254)933-5353)
3. Williamson County Expo Center
 - a. **Address:** 5350 Bill Pickett Trail, Taylor, TX 76574
 - b. **Phone:** [\(512\) 238-2101](tel:(512)238-2101)
4. Brazos County Expo Complex
 - a. **Address:** 5827 Leonard Rd, Bryan, TX 77807
 - b. **Phone:** [\(979\) 823-3976](tel:(979)823-3976)
5. Leon County Expo Center
 - a. **Address:** 3637 Co Rd 305, Buffalo, TX 75831
 - b. **Phone:** [\(903\) 390-8313](tel:(903)390-8313)
6. Navarro County Expo Center
 - a. **Address:** 4021 TX-22, Corsicana, TX 75110
 - b. **Phone:** [\(903\) 872-7600](tel:(903)872-7600)
7. Extraco Events Center
 - a. **Address:** 4601 Bosque Blvd, Waco, TX 76710
 - b. **Phone:** [\(254\) 776-1660](tel:(254)776-1660)



United States Department of Agriculture

Do YOU Have a Plan for Your Livestock Should Disaster Strike?

USDA Preparedness Fact Sheet

October 2016

Any disaster, whether it's a flood, hurricane, tornado or earthquake, can catch you off guard and leave you in danger. It's important to have a plan in place ahead of severe weather to protect your animals and livestock. Pets, farm animals and livestock rely on their humans to protect them and keep them safe in all types of emergencies. The steps we take or don't take will directly impact their well-being.

Using the American Veterinary Medical Association's (AVMA) procedures to **prepare now**, you can quickly and easily safeguard your livestock when disaster strikes.

- **Prepare – Get a Livestock Evacuation Kit**
 - Include feed, water, supplements, supplies (medications, rope/lariat, halters/leads, cleaning supplies, knives, etc.), and papers (veterinary records and proof of ownership).
 - Review your kit regularly to ensure contents, especially feed and medicines, are fresh.
- **Plan – What You Will Do in an Emergency**
 - Determine if you are able to evacuate (This should be based on the type of disaster and the safety and stability of the shelter).
 - Determine where you will go if you have to leave (Identify friends or relatives who could house livestock during the disaster, including fairgrounds or other livestock evacuation locations).
 - Determine how you will evacuate (Decide how livestock will be transported/housed and prearrange an evacuation site). *In case you are not home:*
 - Designate a neighbor to tend to your livestock (This person should be familiar with your livestock, know your evacuation procedures, know where your evacuation kit is kept, and have your emergency contact information).
 - Make sure livestock has some form of identification (microchip, ear/leg tag, leg band, tattoo etc.).
- **Stay Informed—Know About Types of Emergencies**
 - It's always a good idea to find out what types of emergencies could happen where you live and whether you need to make any specific preparations because of them. (A good basic emergency plan is to keep your livestock with you; what's best for you is typically what's best for your livestock. Plan to stay if it's safe to do so, or leave if ordered to evacuate.)



There are unique considerations for horses and other livestock during a disaster. Preparing ahead of time and acting quickly are the best ways to keep you and your animals—[pets](#) and livestock—out of danger. Protect your whole family when emergencies arise with the proper supplies, veterinary information, animal identification and an evacuation plan that has been practiced. Whether the threat is a [hurricane](#), [wildfire](#) or other disaster, lives may depend on being ready.

Planning for disasters

- Assemble an evacuation kit (see below).
- Develop an evacuation plan for all of your animals and practice the plan.
- Keep written directions to your home near your telephone. This will help you and others explain to emergency responders exactly how to get to your home.
- Identify alternate sources of food and water. Because floodwaters are often contaminated with sewer waste and may also pose a risk of chemical contamination, animals should be prevented as much as possible from accessing and drinking them.
- Have well maintained backup generators and a source of fuel for use in food-animal production operations.
- Keep vehicles well maintained and full of gas.
- Keep emergency cash on hand. (Remember: ATMs may not work.)
- If evacuating is impossible, decide on the safest housing option for your animals, realizing that the situation is still life threatening.
- Assess the stability and safety of barns and other structures, promptly remove dead trees, and minimize debris in fields and the immediate environment.
- If you live in an area prone to wildfires, clear away brush and maintain a defensible space around structures.
- Keep a list of the species, number and locations of your animals near your evacuation supplies and note animals' favorite hiding spots. This will save precious rescue time.

Equine identification

- microchip
- tattoo
- halter tag
- neck collars
- leg band
- brand
- mane clip
- luggage tag braided into tail or mane
- clipper-shaved information in the animal's hair
- livestock marking crayon, non-toxic, non-water-soluble spray paint, or non-water-soluble markers to write on the animal's side
- permanent marker to mark hooves

Livestock identification

- neck chain
- ear notches
- leg band
- ear tag
- brand
- livestock marking crayon, non-toxic, non-water-soluble spray paint, or markers to write on the animal's side
- wattle notching
- ear tattoo
- back or tail tag

Evacuating large animals

Equine and livestock evacuation can be challenging. Develop an evacuation plan in advance and make sure animals are familiar with being loaded onto a trailer. Locate and prearrange an evacuation site for your animals outside your immediate area. Possible sites include:

- veterinary or land grant colleges
- racetracks
- show grounds
- pastures
- stables
- fairgrounds
- equestrian centers
- livestock corrals
- stockyards or auction facilities
- other boarding facilities

If you do not have enough trailers to quickly transport all of your animals to an evacuation site, contact neighbors, local haulers, farmers, producers or other transportation providers to establish a network of available and reliable resources that can provide transportation in the event of a disaster.

If evacuation of horses/livestock is impossible, relocate them to the safest place possible based on the type of imminent disaster and the environment, realizing that the situation could be life threatening. Make sure they have access to hay or another appropriate and safe food source, as well as clean water and the safest living area possible, including high ground above flood level. Do not rely on automatic watering systems, because power may be lost.

The decision to leave your horses/livestock in the field or in the barn should be based on the risks of injury resulting from the disaster and from the immediate environment during that disaster. Factors to consider include the stability of the barn, the risk of flooding and the amount of trees and debris in the fields. If time permits, secure or remove all outdoor objects that could turn into dangerous flying debris.

Equine and livestock evacuation kit

- 7-10 day supply of feed, supplements, and water
- Bandanas (to use as blindfolds)
- Batteries (flashlight, radio)
- Blankets
- Copies of veterinary records and proof of ownership
- Cotton halter
- Duct tape

- Emergency contact list
- First aid kit (see item suggestions in the [Saving the Whole Family](#) brochure)
- Flashlight
- Fly spray
- Grooming brushes
- Heavy gloves (leather)
- Hoof knife
- Hoof nippers
- Hoof pick
- Hoof rasp
- Instructions
 - Diet: record the diet for your animals.
 - Medications: list each animal separately, and for each medication include the drug name, dose and frequency. Provide veterinary and pharmacy contact information for refills.

- Knife (sharp, all-purpose)
- Leg wraps and leg quilts
- Maps of local area and alternate evacuation routes in addition to GPS (in case of road closures)
- Non-nylon halters and leads (leather/cotton)
- Nose leads
- Paper towels
- Plastic trash cans with lids (can be used to store water)
- Portable livestock panels
- Radio (solar, hand cranked and/or battery operated)
- Rope or lariat
- Shovel
- Tarpaulins
- Trash bags
- Twitch
- Water buckets
- Whip/prods
- Wire cutters

Evacuating backyard poultry

Be sure to **include birds in your disaster plans**. Plastic poultry transport crates/coops work well for transporting chickens if evacuation is necessary. Vehicle interiors should be warmed in winter or cooled in summer before transporting birds.

Transfer birds to more suitable housing as soon as possible to facilitate feeding and watering. Line crates or cages with shavings or other absorbent material for ease of cleaning. At the evacuation site, house birds away from noisy areas and other flocks, and protect them from the weather and predators.

Backyard poultry evacuation kit

- Leg bands with an emergency telephone number and photos of birds can help you identify them if they escape or get lost.

- Feed and water for 7 -10 days. Vitamin and electrolyte packs (stress packs) may help ease stress.
- Sufficient feeders and waterers for the number of birds.
- Detergent, disinfectant, gloves and other cleaning supplies for cleaning cages.
- Feeders and drinkers.
- Extra absorbent bedding material (newspapers can work temporarily) to line cages or temporary coops.
- If evacuating chicks, consider their special needs (heat, food, equipment).

Additional contacts for equine and livestock owners

- [State veterinarian](#)
- State veterinary colleges or land grant colleges of agriculture
- Private stables/farms
- County Extension office; especially important for livestock owners
- Brand inspector, if applicable
- State and county livestock associations
- Racetracks
- Fairgrounds
- Show grounds
- Stockyards
- Equestrian centers
- Local haulers or neighbors to help with transportation
- Feed distributor
- [American Association of Equine Practitioners](#)
- [American Association of Bovine Practitioners](#)
- [American Association of Small Ruminant Practitioners](#)
- [American Association of Swine Veterinarians](#)
- [USDA-APHIS District Director/Assistant Director](#)
- [USDA-APHIS Emergency Coordinator](#)

Hurricane Preparedness for Livestock

by Joe C. Paschal, Ph.D., Extension Livestock Specialist, Texas A&M University

Livestock owners should "hurricane-ize" their livestock each year prior to hurricane season. This would include making sure their livestock are current on their vaccinations (blackleg, leptospirosis, tetanus, encephalitis). Additional feed, hay and water supplies should be purchased several days prior to landfall and stored in case these are not available following the hurricane. Owners should stock up on basic veterinary supplies (bandages, topical antibiotics, tetanus toxoid) and have restraint equipment (ropes, halters) ready to restrain injured animals for veterinary assistance. Immediately prior to landfall turn off all electrical power and water in the barn (not fences).

Livestock owners can also hurricane-ize their barns, pens and pastures by removing from the premises any loose boards, wire, fence posts, etc. to reduce the chance of injury to livestock by flying objects. Pens and barns should be looked over closely and loose boards or sheets of tin should be replaced or nailed down. Barns can be strapped down to ground ties as trailers are to reduce (but not eliminate) wind damage. Equipment should have a place under cover whenever possible to protect it.

If at all possible, livestock should never remain in a closed barn. Damage or destruction of the barn by wind or tornados would injure or kill them. Whenever possible livestock should be evacuated out of the threatened area (again do this well in advance, with feed, hay, water, and additional veterinary supplies). Make sure your trailer is safe to haul in, good floor with mats, safe tires with a spare, and working lights. Don't plan on coming back until the all clear is given.

If large livestock (cattle and horses) cannot be evacuated, turn them loose in larger pastures or pens with some solid shelter or tall brush and large trees on high ground. This is not the recommended approach for maximum safety, but it is preferable to remaining in small pens or barns. Cattle and horses will instinctively go deep in this type of cover. Smaller livestock (sheep, goats, swine, or rabbits) can be brought indoors for protection if necessary, especially in the garage. Use wooden pallets can be used to create a pen. Also check to see that feed and hay is well covered or protected from wind and water. Put covers on round bales or hay and stack on posts, tires, or high ground to prevent water damage.

Do not put yourself at risk checking livestock that remain outside but be prepared to check on them immediately following the storm. Most animals are used to being outside in bad weather and will be simply stressed and need clean feed, a dry place to stand, and water. Some electrolytes or vitamins will be beneficial in returning them to normal. However, expect the worse, animals may be injured, some severely, so be prepared to render first aid on arrival. For minor cuts and abrasions most owners are capable of assistance. For more traumatic injuries, call your veterinarian for assistance. Younger animals are more susceptible to stress than older animals and may need more care. Also, bad weather often causes pregnant females near term to give birth so watch for little ones. Assist in birthing when necessary.

Most damage to buildings, pens, and animals comes from wind and flying objects so the ability to protect them in advance from these dangers greatly reduces the chance of injury to livestock.

Produced by the TAMU Department of Animal Science, The Texas A&M University System Additional information on animal science topics can be found on the Web at <http://animalscience.tamu.edu>.



Livestock Preparedness & Recovery

David W. Smith, Extension Safety Program

The 2003 Texas agricultural statistics ranks Texas number one in livestock (cattle and calves) production with more than 14 million head. This industry contributes nearly 8 billion dollars in cash sales receipts each year to the state. In the event of a major emergency or disaster, personal safety should always come first. However, farmers and ranchers in Texas should also have an emergency preparedness and response plan that protects the safety of livestock and other animals on the farm or ranch.

Emergency preparedness is important for all animals, but especially for livestock because of their size, feed requirement, and shelter and transportation needs.

The most likely emergency scenario in Texas is flooding.

FLOODS

Floods can be "flash" floods that occur very quickly due to intense rainfall, or develop over time from tropical depressions, tropical storms and hurricanes. Flooding can also result from a failed dam upstream of a farm or ranch. Farmers and ranchers should assess the risk of flooding in their particular region and plan accordingly.

I. Preparing for a Flood

Identify Emergency Resources: In case of a flood situation, have in place an emergency plan to protect your livestock. The emergency plan should include phone numbers of resources you may need before, during and after the emergency, including:

1. Employees
2. Neighbors
3. Veterinarians
4. Poison Control Center
5. Animal shelters
6. County Cooperative Extension
7. Livestock transport resources
8. Feedstock providers in various regions

Make sure to include contact information for resources out of the area as well in case local resources are overwhelmed.

Ensure Animal Identification: All livestock should have visible identification numbers, even if you do not plan to transport them from the property. Floods often drive livestock to seek shelter.

They often become lost or end up in a neighbor's pasture.

Restrict Access to Dangerous Areas: When necessary, move livestock to higher ground and deny access to flood-prone pastures, barns and other structures. Many livestock drown because they refuse to leave flooded shelters. Make sure that livestock are not able to reenter potentially dangerous areas.

Supply Food and Water: During floods, it's important that livestock have plenty of food and clean water. The emergency preparedness plan should include contingency options for feeding and watering these animals if existing resources become contaminated by floodwaters. In some cases, it may be necessary to truck in water to livestock holding areas.

Remove Potential Contaminants: Floodwaters often contaminate soils, animal feed supplies, and fresh water sources by carrying chemicals, fertilizers, trash and other debris from their original containers and locations. Where this hazard exists:

1. Label hazardous materials and place them in a safe location.
2. Remove chemicals, fuels, fertilizers, and other contaminants to higher ground and check containers for leaks.
3. Maintain an inventory of all hazardous substances that could be leaked during a flood.
4. Remove old buried trash that could leach into crops, feed supplies, water sources and pastures.
5. Secure or remove anything that could become blowing debris, including trailers, propane tanks, boats, feed troughs.

Check for Fire Hazards: During floods, farmers and ranchers also need to protect livestock from the threat of fires. Plan to remove all fuels away from the vicinity of barns. Turn off all electrical power to barns and buildings, and other structures that house livestock until the threat of flooding has subsided. Instead, use gasoline or diesel generators that can be transported away from the area when not in use.

I. Flood Recovery

A key component of any emergency plan should include what steps to take after an emergency to protect you, family members, coworkers, and animals. This is especially true when it comes to livestock. The aftermath of a flood can leave serious hazards that can lead to injury and death.

Common hazards include:

1. Contaminated food and water supplies
2. Standing, stagnant water
3. Mosquitoes
4. Livestock carcasses
5. Sharp objects transported or blown into pastures
6. Sick/diseased animals
7. Wild animals displaced by floodwaters
8. Damaged barbed wire fences and gates
9. Weakened barns and other structures

1. Eroded and unstable creek beds

Inventory Livestock: Immediately after a flood event, inventory all livestock and identify any missing animals. Inform neighbors of animals that are lost. Unfortunately, in the chaos after an emergency event, thieves take this opportunity to gather lost animals and sell them as soon as possible. Inform local livestock auction barns in your area to be on the lookout for lost animals that carry your brand or identification.

Remove Hazardous Objects: If it can cut, scrape, gouge or poke, livestock will find it. After a flood, seek out and remove dangerous objects from pastures. Check fences for damage and repair them immediately. Removing these objects not only protects livestock, but protects farm workers and machinery from being injured or damaged when mowing pastures that have grown over and hidden these objects.

Observe Livestock for Sickness : Following a flood, there can be a danger of infectious diseases in livestock. Its important to remove any dead animals as soon as possible and bury them at least three to four feet deep covered with lime. This protects the spread of any diseased animal by wildlife.

1. Inspect livestock for wounds and treat them immediately.
 2. Watch for signs of diseases such as pneumonia, foot rot or leptospirosis.
 3. Isolate sick animals from the herd and report any sign of disease to your veterinarian.
 4. Make sure all livestock vaccinations are current.
 5. Spray insect repellants to protect livestock from increased mosquito and fly populations.
- Inspect Food and Water Sources:** Check livestock feeds for water damage and contamination. Feeding livestock damaged grains and moldy hay can cause digestive problems in livestock. Do not force livestock to eat feeds or drink water that has been flooded, or that has possibly been contaminated by pesticides or other chemicals.

For farmers and ranchers, protecting livestock from the hazards of natural disasters is essential. The suggestions included in this fact sheet are also applicable to other disaster scenarios common in Texas, including tornadoes.

Evacuation

What livestock to evacuate is something one should give a lot of consideration. Hurricane Ike in 2008 delivered a storm surge that traveled inland approximately 14 miles, impacting 20,000 head of cattle, and killing 4,000 to 5,000 head of adult cows—an economic impact of \$14,000,000. Animals located on lands prone to flooding and storm surge should most definitely be evacuated.

If you have friends or family who have a place to board your livestock, that is your best choice.

Public shelters are temporary, lasting maybe a couple of days. Shelters for high value livestock are available throughout the state, but contact

information on those sites isn't released until 120 to 72 hours before a storm makes landfall. A list of livestock shelters is also available to the public during evacuation by dialing **2-1-1**. Keep in mind that public shelters provide only shelter and water.

Feed and hay are the owners responsibility.

Public shelters require all equine to have current vaccinations and Coggins test paperwork. When on the road with vehicles hauling livestock in a hurricane evacuation of any size, animals should be evacuated no less than 72 hours before a storm makes landfall.

However, “evacuating” doesn't necessarily mean moving livestock (goats, sheep, cattle, horses, etc.) out of the county. Many times livestock can simply be evacuated to higher elevations and out of flood plains. **Never stall horses in barns during a hurricane.** Whether livestock are moved to safer grounds within the county, or if they're evacuated out of the county, there are things to consider in either scenario. After the storm passes, there may not be fences, water, etc. for your livestock once you return home. When evacuating it's best to plan for long term, rather than a couple of days.

Supplies:

Prepare early for hurricane season by creating a “Disaster Kit.” Keep your kit well stocked and in an easy to get to location. Be sure to include the following items:

- Supplies for temporary identification of your animals if they do not have permanent ID
- First Aid Kits for both Humans and Animals
- Handling Equipment such as Halters, Leads and Cages
- Water, Feed, and Buckets
- Sanitation Supplies
- Cell phones, Flashlights, Portable Radios and Batteries
- Food, Water, and Disaster Supplies for your Family or Employees
- Current list of all animals, including their location and records of feeding, vaccinations, and tests.

Make sure that you have proof of ownership for all animals. This includes but is not limited to receipts from livestock bought and sold,

registration papers, veterinary records, etc. This proof of ownership is necessary if you must apply for livestock indemnity payments with USDA-Farm Services Agency.

Identification of Animals:



Whether livestock remain in the county, or are evacuated out of the path of the storm, your livestock should be identified. Nothing is better than a permanent hot iron or freeze brand that is properly registered under your name at the County Clerk's Office. Ear notches can be helpful, but are not a positive ID. Horses can be permanently identified with microchips or tattoos. Keep ownership records with you as you evacuate. Take pictures of yourself with your livestock to help with identification if they become lost or if ownership is disputed. You can use temporary forms of identification including halters with ID plates, fetlock ID bands, mane clips or luggage tags braided into tails and manes. Do NOT tie tags around the tails as this would cut off circulation. You can also write on your animals with livestock marking crayon, non-toxic, non-

water-soluble spray paint, or non-water-soluble markers.

Never attach Coggins papers to your animal as this is a ticket for thieves to take them across state lines.



Above is a picture of an evacuee's telephone number engraved with clippers into the hair of a horse's neck. Be sure to include your area code as your animal might end up far away from home. This is a good idea even if the horse is evacuated to a public shelter in another county. It's only temporary, and the hair will grow back!

Feed and Water:

Hay and water are the most important items for livestock in both hurricane evacuation and recovery. Carry sufficient water with you on the livestock trailer—you might get caught in traffic on the evacuation route. It is recommended to carry a three day supply of water per animal if you're evacuating livestock out of the county.

Be prepared for after the storm by filling storage tanks and have a generator available to hook up to your well pump. Keep plenty of hay and feed secured in a dry location. You may need to supplement for some time depending on how effected your property was by storm surge and flooding. Cattle should not drink water with a salt content over 5,000 ppm.



Daily Water Intake	
Animal	Gallons
Horse	18
Cattle	23
Swine	6
Sheep/goat	3
Chickens	1
Turkeys	2

Additional Information: This can be formatted to fit any species

AVAILABLE AT

*the***HORSE.com**
YOUR GUIDE TO EQUINE HEALTH CARE

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Equine Emergency-Evacuation Kit Checklist

USE THIS CHECKLIST to make sure you have the essentials you need in case of an emergency evacuation with your horse.

SUPPLIES FOR HUMANS

- ☐ FLASHLIGHT AND/OR HEADLAMP
- ☐ BATTERY-OPERATED OR HAND-CRANK RADIO
- ☐ CELL PHONE AND CHARGER
- ☐ BATTERIES
- ☐ CASH
- ☐ IDENTIFICATION AND PERSONAL RECORDS
- ☐ EMERGENCY CONTACT INFORMATION
- ☐ WATER (ONE GALLON PER PERSON PER DAY)
- ☐ NON-PERISHABLE SNACKS
- ☐ BLANKETS/WARM CLOTHES
- ☐ WIRE CUTTERS
- ☐ HUMAN FIRST-AID KIT AND MEDICATIONS
- ☐ PERSONAL HYGIENE AND SANITARY PRODUCTS
- ☐ POCKET KNIFE AND/OR MULTIPURPOSE TOOL
- ☐ MAPS
- ☐ _____
- _____
- _____
- _____

SUPPLIES FOR HORSES

- ☐ HORSE IDENTIFICATION RECORDS AND PHOTOS
- ☐ HORSE HEALTH CERTIFICATE AND COGGINS TEST RESULTS
- ☐ HALTER AND LEAD ROPE FOR EACH HORSE
- ☐ FEED PANS AND HAYNETS
- ☐ WATER BUCKETS
- ☐ FEED/HAY (ENOUGH FOR 48 TO 72 HOURS)
- ☐ MEDICATIONS IF ANY
- ☐ WATER (CONSIDER ADDING A WATER TANK TO YOUR HORSE TRAILER IF YOU DON'T ALREADY HAVE ONE.)
- ☐ HOSE
- ☐ BROOM
- ☐ APPLE PICKER/MUCK FORK
- ☐ FLY SPRAY
- ☐ BASIC EQUINE FIRST-AID KIT
(SEE THEHORSE.COM/33573)
- ☐ _____
- _____
- _____
- _____

Horse Identification Form

HORSE'S NAME _____

■ **OWNER**

OWNER'S ADDRESS _____
CITY _____ STATE _____ ZIP _____
WORK PHONE _____
CELL _____
E-MAIL _____

■ **HORSE'S REGISTERED NAME**

REGISTERED NAME _____
BARN NAME _____
AGE _____ BREED _____ COLOR _____
SEX ☐ STALLION ☐ MARE ☐ GELDING ☐ COLT ☐ FILLY
REGISTRATION ORGANIZATION _____
MICROCHIP NO. _____

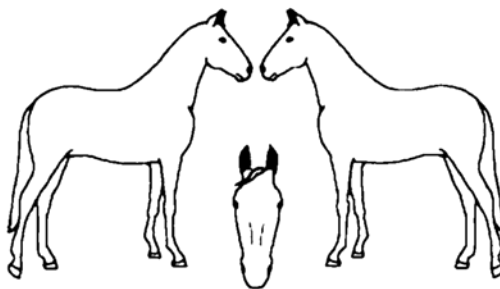
■ **VETERINARIAN**

VET'S ADDRESS _____
CITY _____ STATE _____ ZIP _____
WORK PHONE _____
CELL _____
E-MAIL _____

■ **ALTERNATE CONTACT**

ADDRESS _____
CITY _____ STATE _____ ZIP _____
HOME PHONE _____
CELL _____
E-MAIL _____
INSURANCE CO. _____ PHONE _____

■ **DESCRIPTION / REMARKS**



■ **DESCRIPTION / REMARKS**

■ **OTHER IDENTIFYING FEATURES, EQUIPMENT, OR BEHAVIORS**

■ **MANAGEMENT INFORMATION**

KNOWN ALLERGIES _____
KNOWN HEALTH CONDITIONS _____
NORMAL DIET INCLUDING SUPPLEMENTS AND PASTURE _____
MEDICATIONS/SCHEDULE _____
HORSE IS USUALLY KEPT (Please check one)
☐ AT PASTURE FULL-TIME ☐ STALLED FULL-TIME
☐ TURNED OUT PART OF MOST DAYS
LAST NEGATIVE COGGINS TEST (EIA) _____

■ **VACCINATIONS**

DISEASE(S)	DATE	ROUTE (IM/IN)
ANTHRAX	_____	_____
BOTULISM	_____	_____
EEE/WEE/VEE	_____	_____
WNV	_____	_____
FLU/RHINO	_____	_____
INFLUENZA	_____	_____
POTOMAC HORSE FEVER	_____	_____
RABIES	_____	_____
RHINOPNEUMONITIS	_____	_____
ROTAVIRUS	_____	_____
STRANGLES	_____	_____
TETANUS	_____	_____

■ **ADDITIONAL REMARKS**



Equine Evacuation Emergency Contacts

Print this form, fill it out, and post it in a convenient location in case of an emergency

■ Evacuation site option a _____ Contact person _____

_____ street address
_____ City / state
_____ driving directions

■ Evacuation site option b _____ Contact person _____

_____ street address
_____ City / state
_____ driving directions

■ Evacuation site option c _____ Contact person _____

_____ street address
_____ City / state
_____ driving directions

outside area emergency Contact (who you'll call to update about your situation) _____ veterinarian

_____ secondary veterinarian

_____ County agriculture extension office
_____ local emergency dispatch Center
_____ animal Control

Care During a Disaster

Horse Care and Management Tips for Flooded Areas

by L. A. Redmon, D. H. Sigler and T. B. Hairgrove

Recent heavy rains and flood events have caused a number of horse owners to be concerned about pasture conditions and potential hazards associated with flood events. The following discussion outlines steps to be taken to ensure the safety of horses in pastures following heavy rainfall events.

Soils

Depending on the soil type in the pasture some pastures may be safe for horses to return to almost as soon as the rainfall event ends. Soils that are sandy in nature, because of their high infiltration rates and low water storage capacity, will support animal traffic more rapidly than clay soils. If the pasture is comprised of clay soils, it may be a good idea to keep horses out of the pasture for a week or so after the rainfall event ends to reduce the potential for surface compaction and prevent horses from bogging in the soft soil.

Forages

Soft, waterlogged soils may increase the horse's ability to pull plants from the soil, thus destroying valuable forage plants. Ensure the soil has initiated drying and plants are firmly anchored in the soil prior to returning horses to the pasture. In the event of extended submersion, water will need to runoff, infiltrate, or evaporate and allow plants to initiate recovery from being submerged for an extended period of time. Make sure plants have regained a dark green color, indicating a return to optimal photosynthesis, before subjecting forage plants to the close harvesting associated with horse grazing. Because of the potential delay in returning the horses to the pasture, owners and managers should have alternate sources of nutrition and places for exercise available.

Hazardous Materials

During flood events, high water can transport unwanted materials into the pasture. Prior to returning horses to the pasture, scout the pasture for any items such as boards with nails, sheet metal, fence material, or other objects that may puncture or cut a horse. Also, be sure there are no potentially hazardous materials such as propane bottles, gasoline cans, or other flammable materials that may have inadvertently floated into the pasture. If any unfamiliar containers are located in the pasture, ensure no hazardous materials have been spilled. Typically, flood waters dilute hazardous materials to a safe level, but be on the lookout for any concentrations of such substances.

Disease

Horses forced to stand in flooded pastures are prone to develop thrush, sole abscesses and greasy heel. Frequent observation and care of feet are critical in these environmental conditions. Horses that consume moldy hay or feed as result of flooding conditions may be prone to digestive upset (colic). As the water recedes and stagnant areas remain, diseases associated with mosquitos and midges (i.e. West Nile Virus, irritation and allergies associated biting insects) are more likely. It is very important that all horses' tetanus vaccinations remain current. Horses often experience puncture wounds in muddy and poorly drained areas, these wounds may go unnoticed until it is too late. Check with your veterinarian about other diseases that may be common in your area and recommended methods of protection.

Summary

Flood waters can transport more than just water across the landscape and horse owners should carefully inspect their pastures prior to turning horses back into the pasture for exercise or grazing. If you have questions, contact your local Texas A&M AgriLife Extension agent or specialist.

Produced by the TAMU Department of Animal Science, The Texas A&M University System
Additional information on animal science topics can be found on the Web at <http://animalscience.tamu.edu>.



COLORADO STATE UNIVERSITY EXTENSION

Quick Facts...

- Both livestock and humans can become disoriented after a disaster.
- Make surroundings as familiar as possible to aid in livestock readjustment.
- Livestock management priorities should include getting stabilized.
- Post-disaster recovery often leads to pre-disaster mitigation.

(Note: This fact sheet is not designed to provide a recipe for livestock disaster management. Its intent is to start the contemplation process to make you and your operation more resilient so you can survive better, recover faster and possibly mitigate future risks. Each disaster and impact is site specific.)

Many people in the United States are moving back to rural communities. For many reasons, these new rural residents often desire a lifestyle that includes owning horses, cattle, goats, ducks, chickens, sheep, llamas, alpacas and others. As people move closer to their natural resources, they also move farther away from the protection offered by urban and suburban infrastructure. It can be argued that rural living offers improved aesthetics, lower noise levels, and the feel of more “elbow room.” These characteristics come with the responsibility of handling a larger share of emergencies that are often encountered in rural areas.

In most cases, the response time and resources in rural areas are greatly reduced. Handling disasters, those catastrophic events which stretch the capacity of communities, can only be approached with preparedness, pre-planned reaction and post-event mitigation. During a disaster event, rural residents often find their personal safety a large enough challenge without the added burden of caring for livestock. This fact sheet discusses some basic realities of livestock management after disasters occur. Please refer to fact sheets 1.814, *Caring for Livestock Before Disaster*; and 1.815, *Caring for Livestock During Disaster* for additional information on this topic.

Priorities

Disasters, by nature, are catastrophic events that overwhelm the ability of individuals, communities and regions. During such catastrophic events, many things get damaged including transportation, communications, emotions and thinking.

When dealing with livestock during emergencies, it is critical to re-establish your priorities. The first priority should be your personal safety and welfare, followed by the safety and welfare of other people, and finally animals and property. If you are safe, you can do more to benefit animals. If you are at risk, so is their welfare and health. Follow official instructions for access and safety when reentering a disaster zone.

Seek and Own

The first logical step in caring for livestock and other animals is to locate, control and provide for those animals. Locating animals often is limited by transportation blockages from the disaster because normal routes may not be available. Your local emergency manager, usually found at an established incident command post, may have alternatives. If the emergency manager is difficult to find, contact local law enforcement for information. As you re-enter a disaster area, remember hazards may still occur, including:

- downed power lines.
- flooded areas.
- unstable roads and highways.
- gas and utility leaks.
- debris and wreckage.
- vandals and looters.

Leave an itinerary of your search plan with local authorities and family members. Travel slowly, be alert for hazards, and do not enter unsecured areas. Take identification and livestock ownership documents with you as you search. Official emergency responders often evacuate animals, so check with authorities to see if your livestock has been moved to a holding facility before you enter the disaster zone.

Sensitivity

Animals are like people in that they are emotionally affected by disasters. Often violent impacts of disaster disorient and temporarily alter the behavioral state of livestock. When, and if, you locate your animals, realize that they may be upset, confused and agitated. They need help finding their normal behavioral pattern. Here are some proven techniques for doing this:

1. Handle livestock quietly, calmly and in a manner they are familiar.
2. Wear clothing and use vehicles that are familiar to them.
3. If possible, keep or reunite familiar animal groups with each other.
4. As soon as possible, place them in familiar settings or one which is quiet, calm and insulated from additional stimuli.
5. Soft music and familiar sounds may help calm livestock.
6. If possible, clean the animals (i.e., wipe out their eyes, mouths, and nostrils).
7. If possible, move animals away from the residue of the disaster.
8. Treat wounds of injured animals so their comfort level improves.

Feed, Safety and Shelter

Animals and livestock often relate security to the familiarity of their surroundings. In some cases, you may be able to return them to familiar surroundings and enhance their recovery. Unfortunately, a disaster often impacts the familiar surroundings altering the landscape's character, feel, smell, look and layout. To enhance the animal's comfort level, find another place with similar characteristics. Move the livestock there until you can remedy the damage.

Feed and water are a big part in livestock disaster recovery. In addition to the health and nutrient aspects of appropriate feed and water, livestock can become very picky to eat and drink if their feed and water do not smell and taste familiar. This nervousness is usually greater during and after disasters.

People who show livestock often use Kool-aid® water pails before they haul so that when the animal smells the water at a new location, the Kool-aid® smell is familiar and comfortable. Although not practical before a disaster, many animals will see several holding areas after disasters before finally going home. The Kool-aid®; approach to sensory familiarity can reduce stress along the way. Always remember that a calm and quiet shelter serves both physical and emotional needs for livestock.

Reacclimating Livestock

Since the structure and layout of your operation may change because of a natural disaster, or you decide you want to change things to enhance future management, it may be necessary to treat livestock as if they are

new to the site. Let them learn the fence layout and the availability of water and feed. Your native forage feed availability may work into this process if the disaster impacted the previous forage supply. It is important for both animal safety and landscape recovery if you inhibit livestock grazing pressure on disaster-impacted sites until they become stable.

References

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Care After a Disaster

Care and Treatment of Livestock after a Hurricane



Hurricanes can put livestock in immediate danger of drowning from flooding caused by heavy rains or storm surges in low-lying areas. In addition, flying debris or collapsing buildings can injure animals. Downed power lines can present electrocution hazards. After the hurricane, livestock seeking higher ground may wander onto roadways, creating additional hazards for themselves and motorists. Check perimeter fences along roadways for downed trees or missing water gaps.

As soon as it is safe, livestock owners should check on the condition of their animals. Be prepared to take feed, hay, water, basic livestock first aid supplies, and wire cutters and other tools. Be extremely careful when re-entering hurricane-affected areas because of debris, chemical spills and downed power lines. As soon as possible, move the animals out of any flooded areas and to dry or covered locations.

Check for injuries and render first aid as needed. Serious injuries will require veterinary attention. Be ready to provide some form of aid until the vet can arrive. Remember that veterinarians may have damage to their homes and buildings or livestock too, or they may have more urgent cases to handle first. When you call the veterinarian, be precise in describing the injury. Provide as much detail as possible including respiration, temperature and pulse rate. Offer to render any aid suggested. Don't forget to tell exactly where the animals are located or mention any road closures or bridges along the way.

Give stressed animals clean feed or hay and water. Provide animals that have not had access to feed for one or more days a little feed the first few days. Gradually increase it over a week to full feed. Animals should be allowed access to clean hay even if it is wet. Watch for signs of sickness. Pneumonia will most likely develop if the animals have been in water and cold. Listen for coughing, look for runny noses, crusty eyes, hard breathing and lowered heads. Get treatment for these animals as soon as possible.

Do not give wet or moldy feed to any animal. Wet hay, as long as it is not moldy, is good filler. Dry feed will be best for all classes of livestock. Remember to feed in moderation. Watch for fire ant infestations in the hay from flood areas. If you need hay, contact your local Texas AgriLife Extension county agent's office for a list of local suppliers. Or you can contact the Texas Department of Agriculture Hay Hot Line at 1-877-429-1998.

High water will cause snakes to seek higher ground as well. Rattlesnakes, water moccasins, and copperheads are the principal snakes affecting livestock since they can strike and envenomate quickly. Coral snakes are less of a problem since they have to bite more slowly to envenomate their victims. Usually animals are bitten on the head or neck area, but smaller livestock can be bitten anywhere the snake can reach. Smaller animals are more susceptible to snakebite since the dose of venom is greater relative to body size. When they are bitten on the head or neck, swelling can block airways and cause asphyxiation. If you suspect snakebite on a small animal, contact your veterinarian quickly. Spiders (particularly the Brown Recluse and the Black Widow) are also of concern, but mostly from a human standpoint. Most bites are not fatal to livestock.

Improving Lives. Improving Texas.



External parasites, especially mosquitoes, will be a major problem. A number of commercial products are available for treatment of individual animals or small areas (foggers and sprays). However, for larger livestock, their only relief will be dry pastures with access to a good wind. Usually the larger livestock tolerate mosquitoes and biting flies even though it is not in their best interests to be afflicted. Some can transmit diseases, such as West Nile Virus in horses. The best defense is to ensure the animals are vaccinated against the major diseases (or boosted) as soon as possible. Ticks, especially the hard (or outside) ticks, will move to higher ground and onto more livestock. Several good commercial products are available and should be applied when possible because ticks can also transmit diseases like anaplasmosis.

Internal parasites may become an issue over time, especially if cattle from several sources are commingled and many pastures are flooded. This will not be an immediate problem due to the extended lifecycle of most of the internal parasites but may become a problem later. You should visit with your veterinarian about future treatment.

Water quality will also be an issue, especially for livestock in populated areas that drink from streams, bayous, and tanks that fill with rain runoff. This water could be contaminated with salt water from storm surges, petroleum products, dead animals, and fecal material from flooded septic tanks and sewer systems. If possible, water livestock from cleaner water sources until these can be evaluated.

If there are dead animals on your property, dispose of them properly if possible. Dead animals cannot be burned without permission of the Texas Commission on Environmental Quality, but this might be waived in the case of a natural disaster. Usually one or a few animals can be allowed to decompose above ground (if burial is not feasible) if they are not a human health hazard, do not obstruct traffic, and are not in a waterway or drainage area. If you do bury them, avoid ground that is within 50 feet of any water well.

These recommendations are just a partial list of actions that livestock owners should be aware of in a post-hurricane event and do not cover several species-specific concerns. Whenever possible, livestock owners should either evacuate their animals to a safe area or move them to high ground that has some protection from the wind and rain. Ideal are wooded or brushy areas where livestock have access to natural shelter, feed (or hay), and room to move to avoid flying objects. If animals (such as pigs) are housed in a confined space where escape is not possible, facilities should be evaluated for flooding hazards. Animals in these situations may need to be moved to another location. Livestock owners should have an inventory list of their animals, identification numbers (or pictures), and veterinary records. A first aid kit would help in preparing for the worst.

Texas livestock owners can find hurricane-related information on the Texas Extension Disaster and Emergency Network (EDEN) at <http://texashelp.tamu.edu/>. The EDEN website has pages for Hot Topics (current problems) and Disaster Information (preparedness and recovery), plus a full library of disaster resource information by topic.



Preparing Youth Livestock Projects



Everything covered in this guide pertaining to preparation, evacuation, and recovery of livestock also applies to youth livestock projects. However, there are a few things we've learned from past storms that we might want to apply a bit differently to youth livestock projects. Hurricane season runs annually from June 1st to November 30th. The difficulty of this season is that this is typically the time when animals are on feed for your County Fair. Not always, but historically, hurricanes impact Texas counties in the month of September. When a storm is likely to impact your County, you're faced with the decision of evacuating your show animals to safe ground, hoping to still have something to show at the Fair after the storm passes. At least that's the plan. But that wasn't exactly the case with Hurricane Rita, nor with Hurricane Ike. With Hurricane Rita in 2005, many 4-H and FFA families evacuated all species of show animals (poultry, swine, sheep, goats, horses, cattle, rabbits, etc.). What happened is that the storm did not impact many counties and more animals perished in transport in the hot September sun on the highway, than did if they were left at home with fans running, and plenty of feed and water. Mostly it was show broilers, turkeys, and swine that perished during the evacuation with Hurricane Rita. But with Ike in 2008, many were impacted by the storm—in terms of physical damage and lack of electricity and water. Animals left at home may have gone without electricity to run fans or wells to pump water. But the good thing is that many families were able to return home early on Saturday and Sunday after Ike to tend to animals. Those without generators were in worse shape than those with generators to run fans and water wells. Because of lessons learned from past storms, it is recommended to follow these plans for evacuating certain species:

Show Broilers, Turkeys, and Swine: Don't attempt to evacuate. The stress of travel is more on these animals than leaving them at home with a three to four-day supply of feed and water. See page 2 for minimum daily water requirements of poultry and swine. Have a generator on hand.

Show Horses, Beef Cattle, Goats, Rabbits, and Lambs: Evacuate these animals. They will handle the stress of travel better than swine and poultry. Travel with water, keeping animals comfortable. It's best to travel at night with your show animals.