

Hurricane Preparation for Florida's Horses

By Amanda M. House, DVM, DACVIM and Dana N. Zimmel, DVM, DACVIM, DABVP (Equine Practice)
University of Florida College of Veterinary Medicine

The Atlantic hurricane season is upon us again until November 30, 2017. Although we always hope that most of the activity will remain offshore in the Atlantic, we have been very fortunate in the last several years that a major hurricane has not hit Florida. With Hurricane Irma tracking into the Caribbean and towards the Florida Keys, the time to prepare our homes and our farms is now. The leading causes of large animal deaths from hurricane Andrew were collapsed barns, electrocution, and kidney failure secondary to dehydration. Advanced disaster planning for your family, your pets, and your horses is crucial to minimize panic and consequences should a storm strike your area. A comprehensive disaster plan should include how to prepare before the storm, what to have available during the storm, and considerations for after the storm.

Preparation Before the Storm

Evacuation of flood plains and coastal areas is commonly recommended in severe storms. Be familiar with evacuation routes and facilities for horses in your area. If evacuation is recommended, plan to leave at least 72 hours in advance of the storm. If you do not own a trailer, be sure to have numbers on hand for equine transportation companies or friends who can assist in transportation and evacuation of your horses. If you have horses that may not be comfortable loading into a trailer, practicing this in advance is recommended. Ideally, locate farms, horse show facilities, or shelters where you can move your horses to before a storm. There are excellent resources provided online from the American Veterinary Medical Association called Saving the Whole Family at https://ebusiness.avma.org/files/productdownloads/STWF_English.pdf and from our state at Florida Disaster: <http://www.floridadisaster.org/EMTOOLS/Severe/hurricanes.htm> Your county agricultural extension agent, local animal control services, and Florida's State Agricultural Response Team may be able to provide additional resources as well. Communication of your plans is a key component, so notify friends and neighbors of your evacuation plan, and post it at your home and farm in the event you cannot be reached. Remember that transporting livestock in trailers is dangerous in winds greater than 40 miles per hour. If sufficient time is not available for evacuation, be prepared to make your home and farm as safe as possible to wait out the storm.

Routine horse health care is essential year round, and especially as we enter into the storm and mosquito seasons. All horses should be vaccinated with tetanus toxoid, West Nile virus, eastern and western encephalitis, and rabies vaccinations. The encephalitis vaccination should be boosted approximately every 4 months in Florida, so if horses were vaccinated in January or February, a booster before storm season would be indicated. Rabies and tetanus immunizations should be administered annually as well. If you will be transporting your horse to a boarding facility where they may be exposed to new horses, vaccination for equine herpes virus and influenza would also be recommended.

Coggins testing should be done annually on all Florida horses. Infection with the equine infectious anemia virus results in lifelong persistent infection. The disease is also called "swamp fever", because of its historical prevalence in the Gulf Coast States. However, the number of infected horses per year is typically very small (fewer than 10 in over 100,000 Florida horses tested). All horses are required to have a negative Equine Infectious Anemia (EIA) test, also called a Coggins test, within 12 months of transportation within or out of the state. The only exception to this rule is foals under 6 months of age, if they are accompanied by their dam who has a negative test within the past 12 months.

The Commissioner of Agriculture has waived this requirement in the past under extreme evacuation circumstances; however, ideally be sure all horses Coggins' tests are up to date in the spring.

Depending on your location within Florida, a health certificate will be necessary if you are required to cross state lines for an evacuation. The Division of Animal Industry of the Department of Agriculture and Consumer Services offers 2 types of laminated cards, containing digital pictures of the horse, as a voluntary alternative to the paper Coggins document. The Negative EIA Test Verification Card will be accepted within the state of Florida as proof of a negative test. The card has the same expiration date as the official Coggins reporting form, but is not valid for change of ownership (original form required). The Equine Interstate Passport Card will be accepted by participating states as proof of a negative EIA test and an Official Certificate of Veterinary Inspection (health certificate) within the previous 6 months. The Passport Card is not valid for change of ownership. The states that honor the Florida Equine Passport Card are Alabama, Arkansas, Georgia, Kentucky, Louisiana, Mississippi, New York, North Carolina, Tennessee, Oklahoma, South Carolina, Texas, Virginia, and West Virginia.

Each of your horses should be clearly identified in one or more ways prior to a hurricane, regardless of whether you are evacuating. Microchip identification has been advocated by many owners and veterinarians. Be certain to keep paperwork and numbers in an easily accessible area. A zip lock bag with the horse's name, owner information, and farm information can be duct taped to the halter. Luggage tags with identifying information can also be braided into the mane or tail. Neck collars, leg brands, tattoos, and livestock safe non-toxic markers or paint have all been utilized for identification as well. Photos of each horse and their distinctive markings should be kept with relevant medical history, medical records, health documents, important phone numbers and owner information in an accessible area and stored in a water tight envelope or container. Be sure that all paperwork is easily accessible before a storm.

In addition to preparing your horses and your evacuation route, some important steps are also necessary for preparation of the farm. It is absolutely essentially that adequate feed and water are stored for your horses. Each horse should have 12-20 gallons of stored water per day. The minimum recommended storage would be at least enough for 72 hours, but preferably for 7 days (that is 140 gallons for one horse for a week). Garbage cans can be filled with plastic liners and filled with water, and all water buckets and troughs should be full. A generator or at least hand pump on wells is recommended. Chlorine bleach may be helpful to have on hand to add to contaminated water – 2 drops of bleach can be added per quart of water, and it should be left to stand for 30 minutes. Enough feed should also be stored for 7 days if possible. Water tight containers should be utilized for grain, and hay can be kept elevated on pallets and covered with tarps. Have a first aid kit and emergency tools in a secure location before the storm (see included lists).

Movable objects on the farm should all be secured prior to a hurricane. Jump standards and cups can become dangerous projectiles in high winds during a storm. All moveable farm supplies should be stored in a closet or secure location, this would include farm equipment, jumps, chairs, and lawn furniture. Electrical power should be turned off to the barn.

During the Storm – Pasture or Barn?

One of the leading causes of death in horses in previous hurricanes has been collapsed barns. If the pasture has good fencing, limited trees, and horses can get to high ground, they are probably best left outside during a storm. Horses should not be kept in pastures with power lines, barbed wire, or

electrical fencing during a hurricane. Although well-constructed concrete barns or pole barns may provide shelter from flying debris, horses may become trapped or injured if the building collapses.

Consider evacuating your family and pets to a secure inland shelter or safe place if you are in a coastal or floodplain region. If you are not planning to evacuate, ensure you have an adequate amount of food and water stored for your family and pets. Flashlights, batteries, a radio, and a home disaster kit should be prepared in advance. Stay indoors during a hurricane and away from windows and glass doors. Windows and blinds should be kept closed. A small interior room, closet, or hallway on the lowest level of your home is typically the safest place.

After the Storm

Do not go outside to inspect your horses, property, and farm until the hurricane has completely passed. The winds may become briefly calm in the eye of the storm. Once the storm is over, carefully inspect each horse for injuries over the body, head, eyes, and limbs. Walk the pastures to remove debris and make sure that no Red Maple trees, leaves, or branches have fallen in the pasture. Red Maple leaves are highly toxic to horses even in small amounts. The property should be inspected for down power lines and other storm damage. If your horse is missing, contact the local animal control officer and/or the disaster response team.

Each county in the state of Florida has an Emergency Support Function officer (ESF-17) in charge of animal emergencies. They report to the Emergency Command Officer for the county who reports to the state veterinarian Dr. Short. The College of Veterinary Medicine has formed an Emergency Response Team per the request of the Governor. This team, "VETS" Veterinary Emergency Treatment Service, will provide immediate veterinary care at the request of the state until the community is able to stand on its own. The Florida Department of Agriculture and Consumer Services is the lead agency for animal and agricultural emergencies, and developed the FloridaSART (State Agricultural Response Team, <http://www.flsart.org/>) as a planning, training, and response support group for state-level emergency response activities.

There are additional teams of rescue personnel such as DART (Disaster Animal Rescue Team) <https://spcala.com/programs-services/dart/> and Code 3 Associates <http://code3associates.org/>. These teams are trained in rescue techniques and work with local and state emergency personnel. All of these individuals are dedicated to assisting the community in a crisis. They can rescue horses from sink holes, air lift them from flooded areas or arrange for a water tanker to come to the farm.

Early preparation is the key to successful hurricane planning. Understanding what to do before, during, and after the storm at your home and barn will help minimize damages in the event of a storm. Have a plan for your family, pets, and all livestock. Although we cannot control the weather, we can mitigate potential disastrous results with a responsible and well-prepared plan.

Farm First Aid and Disaster Kit:

- Thermometer
- Stethoscope
- Scissors
- Adhesive tape and duct tape
- Hemostats

Leg wraps
Soap
Flashlight and extra batteries
Clippers
Latex Gloves
Bandage Materials – roll cotton, gauze pads, cling wrap, sheet cotton, etc.
Antiseptics (Chlorahexidine, Betadine solution)
Wound dressing/ topical antibiotic
Hoof pick and knife
Phenylbutazone (Bute) and/or Banamine®
Bottles of Sterile saline
PVC pipe for splinting
Halters and lead ropes
Fly spray
Clean towels

Emergency Tools for Storm Preparation:

Hammer/nails
Fence repair materials
Wire cutters/tool box/pry bar
Fire extinguisher
Hammer/nails