

Recent Weather Phenomena Highlight Need for Disaster Planning

By JULIE TOOTH and ROBIN STANBACK

Horses and their caretakers are not immune to natural disasters. The bizarre weather currently being experienced in many areas of the world, compliments of El Nino, serves as a good reminder to horse enthusiasts to formulate an emergency plan for their equine charges.

Dr. John E. Madigan, D.V.M., Dipl. ACIVM and head of the University of California Davis Veterinary Medical Teaching Hospital Rescue and Disaster Response Team, outlined information and equipment necessary for making the best of disaster conditions in a recent report from UC Davis' Center for Equine Health. Dr. Robert Boswell, D.V.M., of the Palm Beach Equine Clinic in Wellington, Florida set up a temporary equine hospital after Hurricane Andrew blew through south Florida in August of 1992. Dr. Patricia Ellis, Principal Veterinary Officer of the Horse Industry Programs associated with the Department of Natural Resources and Environment in Australia, has also had some experience helping horse owners prepare for the seasonal bushfires that plague areas of her country. These veterinarians offer valuable information to horse owners faced with coping and caring for horses under disaster conditions.

Dr. Madigan advises becoming familiar with the area in which the horses live with regard to proximity of creeks, waterways and drainage areas. Imagine the worst case scenario when considering the plan; there may be a need to create a mound of high ground or fill low areas with rock. Check the security of fencing and inspect buildings for sharp edges and soundness. Dr. Boswell saw many wounds caused by flying debris during the hurricane and it was this experience that causes him to advise horse owners to keep barns and areas surrounding pastures clear of excess materials that could become lethal if picked up by high winds. Flying sheet metal, roofing tiles and street signs caused some of the worst wounds he treated.

The southeastern United States is currently experiencing the most active tornado season in history, according to the National Weather Service. One of the most commonly asked questions Dr. Boswell has had is whether to leave horses in or out of the barn when weather reports indicate the likelihood of severe weather. He said the answer is not simple but "the most important consideration is the integrity of one's barn. If the barn is built to modern (and I stress the MOST up-to-date) building codes, then a good, solid structure is a good place for a horse to be." He also suggested that some windows be left open to avoid pressure gradients. In the case of a solid structure not being available, Dr. Boswell feels a large pasture offers horses an opportunity to weather a storm using their natural instincts, which serve them well. For instance, with a 12-acre paddock available or a 50+ year old converted tobacco barn, horses would be better off OUTSIDE during a severe storm. Dr. Boswell pointed out that no man-made structure can withstand a direct hit from Mother Nature, so current conditions have to be evaluated when making a decision about animals during adverse weather.

Dr. Ellis pointed to an article prepared by Dr. Graham Tudge as an example of a horse's natural ability to survive extreme conditions. In Australia, where bushfires ravaged a large area of the country in the past year, questions arose as to what would be the best plan for horses caught in the path of the conflagration. Dr. Tudge advised, "Do not shut your horse in a stable or small yard or deliberately turn it out on the road. Move it into an open space, preferably as large a paddock as possible. Past experience of bushfires indicates that horses will get minimally



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A helicopter airlifts a horse from a flooded area.



burned if given maximum space. They have been observed time and again to gallop through the wall of flame around its edge, and to stand on the blackened, previously burned area, and remain there until the fire has passed on.”

Another recommendation from Dr. Ellis was that it would be beneficial to remove all extra equipment such as blankets and halters from the horses prior to turning them out as blankets can burn and buckles on halters can become very hot.

All of the veterinarians stressed the need to plan for and secure supplies in case of evacuation and in the event of having to care for horses without the day-to-day conveniences of electricity, readily available feed, and safe water source. Dr. Madigan recommends plans to be self-reliant for 72 hours in the event of a natural disaster. He points out that oftentimes feed is unavailable or quickly depleted at evacuation. He advises keeping hay in the trailer in nylon sacks or feed in plastic bags or containers with tight fittings. Also, buckets and an extra five gallons of water should be kept in the trailer.

Dr. Kathleen Crandell of Kentucky Equine Research elaborated, “I would want to have at least one 50 lb bag of feed per animal as well as enough of their regular forage to see you through a few days. Another advantage to this is that it would enable you to change gradually onto a different food or hay should your regular supplier be ravaged by the same disaster. If, for instance, you normally feed a grass hay and all that was available to you would be straight alfalfa you would want to be able to help the horse

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make the switch.” Dr. Crandell also stressed the importance of keeping your reserved feed in a cool and dry place if at all possible to help it maintain its integrity.

If evacuation becomes necessary, Dr. Madigan recommends moving horses to a safe area as soon as possible after warnings are posted. “When you have seen houses under 26 feet of water and horses with their heads out of six feet of water stuck against fencing and stranded for days, the idea of evacuation becomes very appealing,” he said. He advises getting out before access roads become impassable. Dr. Madigan also says it will take longer than planned to load and transport or to arrange transport for horses during disaster conditions.

A well-stocked emergency medical kit is, of course, essential. Additional items that are valuable in a disaster situation include: flashlights and portable radio (include extra batteries), shovel, ax, wire cutters, leather gloves, extra halters and leadropes as well as extra clothing for both humans and horses. Keep vehicles in good working order, teach horses to load BEFORE a disaster strikes, and take along area maps, cellular phone and emergency numbers. Leave waterproofed notes in the barn and house for disaster/rescue personnel indicating if there are any animals left on the premises.

All of the veterinarians consider identification of horses to be a special consideration during times of natural disasters. Dr. Madigan recommends that identification tags be

made for the animals to wear on their halters or around their necks. Another good place to put an ID tag on a horse is around both front fetlocks, Dr. Boswell said. The hospital type tags can be purchased and are good to use. During Hurricane Andrew horses were literally picked up off the ground and relocated uninjured far from their homes. He said he has known people to use spray paint to put an ID on their horse or even clipping information onto their animal when they know a severe storm is imminent. Retrieval of the horses will be facilitated if there are photos of them kept in waterproof containers in the emergency kit. Dr. Boswell said to take photos from the front, rear and two side views as well as close-ups of any unusual or distinguishing marks. Dr. Dan Bowling of Nicholasville, Kentucky addressed the question of identifying animals and proving ownership by suggesting microchipping the horses. He believes the use of a microchip "helps in many instances, not just disaster planning, and certainly needs to be done well before any actual disaster should strike." He has followed up on his own suggestion by implanting all of his own horses with microchips.

Caring for horses during and directly following severe weather or fires can be very challenging. "Except for large floods such as levee breaks or flash floods, horses can handle water up to their bellies for a long period of time," Dr. Madigan said. "They will need to be fed where they are and can keep warm by eating hay. Some limb swelling will occur with prolonged water contact, but in general, most of the horses we have seen can tolerate having their limbs submerged for 48-72 hours."

Dr. Madigan stressed that mud can pose a serious hazard for stranded horses. Trapped and immobile, they can fracture a limb or seriously injure themselves struggling in deep, sticky mud. Eye injuries are common as they attempt to pull themselves free and hit their faces on stalls or fencing. Other hazards common to horses in disaster situations

include aspiration pneumonia, wounds (especially to the legs), waterborne illness such as leptospirosis, and gastrointestinal infection from ingestion of contaminated water. He stressed the importance of keeping horses immunized for tetanus and rabies.

According to the information Dr. Ellis and the Australian Department of Natural Resources and Environment distribute, "During a fire there is obviously little one can do. Horses often suffer only facial burns, presumably obtained as they turn and run through the flames. These frequently look worse than they are because the eyelids become swollen as a result of burning, to the extent that the horse may not be able to open its eyes. In these circumstances the horse cannot see, but the eyes are usually normal behind the swollen lids and treatment will restore normality."

"A burned horse needs urgent veterinary attention, but there are several things one can do until professional help arrives. Burning produces severe inflammation, indicated by heat, pain, and swelling. Any first aid must be anti-inflammatory, or designed to negate these signs; sponging with cold water would be one of the few possibilities." The veterinarian, after assessing the degree of the burn, can then administer pain medications and, when necessary, antibiotics. Anti-inflammatory creams such as aloe vera and cortisone may be supplied for topical applications where practicable.

Injuries sustained by flying debris in a tornado or by the heat and smoke of a fire often require the services of a veterinarian who may or may not be readily available. This is when the completely stocked emergency medical kit may provide the necessities to keep the horse alive and as comfortable as possible until the veterinarian arrives. Items to include in this kit would be: sponges, gauze, antibiotic ointments, tape, individually wrapped feminine hygiene pads (they work well for compresses), scissors, towels, iodine solution, and soap.

Advanced disaster planning is one of the best things horse owners can do for their animals. Practicing loading, stocking a trailer and emergency medical kit and readying photos and emergency information are among the important "fair weather" things that can be done before storm clouds gather. ☺☺



During the January flooding in California rescue crews found many horses hungry and cold on small islands of dry land.