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Preparing Horses for Transit and Competition

Rebecca Bott, *Extension equine specialist*

When it comes to transporting your horses, preparedness is essential for the safety and health of both you and your horses.

BEFORE DEPARTURE

You must be in compliance with various agencies before you depart. The South Dakota Animal Industry Board and the South Dakota Brand Board are great places to start. Each of these organizations has created a set of guidelines to protect you, your horse, and the community. In addition, don't forget to be in compliance with your destination's event/sale regulations.

Coggins Test/Health Certificates

According to the South Dakota Animal Industry Board, all horses* entering the state of South Dakota must have a proof of a negative Coggins (EIA) test within 12 months prior to entry. Health certificates are required when entering the state, and also when attending many shows, sales, or other types of exhibition. Health certificates are usually valid for 30 days. Contact the event or sale office before arriving to ensure you are prepared with the proper health documentation. These documents should be kept in the vehicle with you at all times when transporting horses, in case you are asked to provide documentation along the way.

Brand Inspections

Western South Dakota is a *brand territory* (livestock ownership inspection area), so any horses that are being transported out of western South Dakota need to have proof of brand inspection. This is simply a way to verify that you are the horses' owner and have the right to remove them from this territory.

Ownership or brand inspection is required prior

to sale, slaughter, or removal (e.g., training purposes) from the South Dakota livestock ownership inspection area. The fee is \$0.80 per horse, plus mileage for the brand inspector. If the horse does not have a brand, you should have proof of ownership in the form of a bill of sale, registration papers, records of health care, markings, etc.

For horse owners who reside in western South Dakota and transport their horses in and out of the region on a regular basis, a \$10 lifetime non-transferable permit may be purchased. This permit is valid until the horse is deceased or until ownership is transferred, whichever comes first. Horse owners who live in eastern South Dakota and take their horses to and from the western part of the state on a regular basis may purchase an annual transportation permit for \$3 per horse.

In most cases, brand certificates are honored reciprocally between brand states, but you should check with the South Dakota Brand Board before traveling out of state. Brand certificates, along with proper health documents, should always be on hand when transporting horses.

Vaccinations

There are many means by which a horse may be exposed to disease. The most common methods are through contact with other horses, environment, people, and any other potential contaminant. When hauling your horses, you are likely moving them either from or towards a group of horses. Every time your horse is exposed to a group of horses, there is a risk of exposure to disease. Vaccinations alone will not prevent your horse from becoming sick, but vaccinations are an excellent part of a comprehensive health program to manage risk and optimize health in your horses.

* Exceptions may exist for horses entering from Nebraska and North Dakota. Check with the South Dakota Animal Industry Board for details.

Vaccinations for each horse should be chosen, in consultation with your veterinarian, based on the risk of exposure and the consequences of the disease if the disease were to occur. Once a horse is vaccinated, it takes time for its body to fully develop immunity against the disease, so you should not plan to vaccinate immediately prior to departing for a show or event. Instead, when possible, plan ahead with your veterinarian to vaccinate in advance of travel.

AFTER DEPARTURE

Physiological effects of transport for a horse can include stress, respiratory infection, and negative influences on the horse's energy, water retention, and gastrointestinal (GI) tract.

Stress

It is important to know your horses and how their behaviors change during stressful situations. It is also important to manage the amount of stress you place on your horse.

If your horse is new to traveling, it would be unwise to load them for a long haul. Instead, try to adjust them to transportation by taking short local trips and by maintaining a positive loading and unloading environment.

If you have a young, more nervous horse, it could be beneficial to transport the horse with an older, more seasoned traveler, so the nervous horse has a calm "buddy" to learn from. Minimizing the emotional stress of transit will allow your horse to better cope with the physical stresses of transport.

Respiratory Infection

Respiratory infection is the most common transport-related illness (Stull, 1997; Kohn, 2000; Stull and Rodiek, 2002). Respiratory infection as a result of transport is indicated by depression, fever, decreased feed intake, nasal discharge, cough, and increased respiratory rate. These signs may first appear any time during transit, or for several days after travel.

During transit, horses are in small, enclosed areas, which may lead to changes in temperature and humidity as well as increased dust from hay and bedding; bacteria populations tend to be high in these conditions. These factors, combined with the fact that horse's heads are often tied up during transit (thus interfering with their ability to clear their airways), makes the horse susceptible to respiratory infections. The risk of respiratory infection also increases with duration of travel.

There are a few safeguards to prevent respiratory illness in your horse. If your horse displays any signs of respiratory disease, the horse should not be transported. Managing the temperature and humidity during transit can be accomplished by opening windows of the trailer or by reducing the number of horses being transported together. Dust particulate can be minimized by selecting high-quality hay and bedding that is low in dust.

If your particular transit situation is not conducive to having your horse untied (e.g., transporting multiple horses), you should stop every few hours and untie your horse, allowing the horse to move around and stretch for 30 minutes. This break time not only allows your horse to clear their airways by dropping their head and coughing, but also allows them to stretch their necks and backs. As horses spend a lot of energy using their long, lean muscles to balance during transit, they usually welcome a chance to move around.

Effects of Transit on Energy, Water, and the GI Tract

As mentioned previously, a horse will spend a lot of energy balancing itself during transit. This constant series of adjustments, as a horse shifts its weight from one limb to another in order to cope with the motion of the vehicle, can begin to deplete energy stores by using glycogen that is stored in muscles. A horse may also begin to lose water stores by sweating from nervousness or excessive heat in the trailer. Weight reduction from water loss can be extensive and becomes more severe as the duration of a trip increases. Weight loss from water loss can be between 1% and 1.6% of the horse's body weight after only 2 to 3 hours of transit, and may become as severe as an over 5% reduction in body weight with long periods (60 hours or more) of transit (Kohn, 2000). An over 5% reduction in body weight due to water loss is indicative of severe dehydration and will impair a horse's normal bodily functions.

At home, a horse who is losing water or energy can correct losses by drinking and eating more. However, due to a number of factors, including stress, horses in transit often decrease the amount of food and water consumed. When consumption of food and water decreases, *gut stasis*, a lack of motion in the gut, increases. In order to move ingested feed through the digestive tract, the gut wall needs to continually contract; this motion is reduced with a reduction in intake (food may simply sit in place inside the digestive tract). These events are of concern because when combined they can ultimately lead to colic and diarrhea.

There are several clinical signs of dehydration that a horse owner should be familiar with. The first test of dehydration is a *tent test*: The skin on a well-hydrated horse's neck should be elastic and will snap back into place after being pinched; when a horse is dehydrated, its skin loses pliability and may take several seconds to return to its normal position after being pinched.

Capillary refill time is another measure of hydration and health: If you push on the upper gums of a horse, blood is forced from that area, creating a discoloration; in a healthy horse, a normal pink color will return within one or two seconds; if it takes longer, your horse is either not drinking enough fluids or may be ill.

You should also be familiar with normal pulse and respiration rates of your horse—deviations from normal and any signs of exhaustion could also be indicative of dehydration.

It is important to encourage your horse to drink during stops. Offer clean, fresh water to your horse at all gas stops and scheduled rest breaks. Horses are sensitive to the taste of water and may not be inclined to drink water from an unfamiliar source. If it is possible, hauling water from home may encourage your horse to maintain water intake. Another option is to spend time before the trip getting your horse used to flavored water. You can add a small amount of sports drink or apple juice to your horse's water. If the horse becomes accustomed to this, then you can flavor unfamiliar water as an incentive to continue drinking. It is important to use these flavors in small amounts—just enough to add flavor to the water. Sports drinks and apple juice contain high amounts of sugars that, if consumed in larger quantities, can predispose your horses to digestive upset.

High-quality hay or roughage should always be the foundation of your horse's diet. This works to your advantage in the days before transit because hay in the gut will hold a lot of water, which keeps your horse hydrated.

TIPS FOR SUCCESS ON THE ROAD

Being prepared for departure and knowing the potential physical effects of travel are important, but attention should also be paid to trailer design and use, route planning, emergency preparedness, and protective gear for horses.

Trailer Design and Use

Consider the implications trailer design may have on a horse. Even the simplest aspects, such as the color of the trailer, can play a big role in a horse's comfort,

or lack thereof. Temperature inside a trailer is often upwards of 10–15°F warmer than the outside temperature. If the trailer is a dark color, the temperature may rise even higher. While you are on the move, ventilation such as opening windows can help accommodate the horse's comfort level. However, when the trailer is stationary, ventilation mechanisms become useless and your horse's potential for heat exhaustion rises. If you are going to be stopped for more than a couple of minutes, your horse should be unloaded to help reduce heat stress. It is crucial to have worked with your horse enough at home to ensure they are easy to load and unload. It is also important to stop and unload only at safe locations, rather than on the shoulder of a highway.

When horses are loaded in a trailer and left untied, most will choose to face standing backwards. The second most common stance is sideways. Facing forward is the stance chosen least often. Often, a horse's head is tied during transit; this may be for a couple of reasons, including keeping the horse where you want it and for safety when multiple horses are loaded. The act of tying a horse limits its choice in position, prevents it from clearing its airways (which can lead to respiratory illness), and limits its ability to balance by moving its head up and down. It is important to weigh the benefits and disadvantages of tying versus not tying when preparing for your trip.

By nature, horses are social creatures. A horse may become stressed when transported alone or next to an aggressive horse. If you are loading several horses, keep their personalities in mind when deciding the order in which to load them. Calm, seasoned horses may set a positive example for your less-experienced horses.

Check the controls and integrity of the trailer. A quick inspection should cover tire tread and pressure, brake controller, lights, ball lock, and floorboards. The truck itself should also be inspected.

Planning a Route

When planning the travel route, consider a route that includes the smoothest roads with the least number of stops. The bumpiness or smoothness of a ride affects the amount of energy the horse spends on balancing, and the stress of the transit. Similarly, the number of accelerations and decelerations and the number of hills take a toll of the horse, as these are also energy-requiring events (in order for the horse to adjust itself). In smaller towns, there may not be any direct paths without stops, so be sensitive to the situation and brake and accelerate gently.

Emergency Preparedness

Once you have determined your course of travel, prepare by obtaining the locations and contact information for equine veterinarians along the route; attention to this kind of detail will help you make critical decisions in an emergency. It is also important to plan rest stops and gas stops if you are traveling in areas with few or infrequent opportunities. An additional safety measure is to let others know your travel route and expected departure and arrival times.

Pack a first-aid kit for humans and horses. This should include basic bandages, ointments, sterile saline, and syringes. Banamine can be useful in the event of colic. A stethoscope is useful for listening to gut sounds if colic is suspected. Extra blankets, water, and food is important as well. A small pocket knife and an extra halter and lead rope should be packed. Also ensure you have the basic tools necessary to change a tire. Pack along a cell-phone charger, or ensure the cell phone is adequately charged before the trip. No one expects an emergency, but these situations are better dealt with if you are prepared.

Protective Gear

Many pieces of protective gear are available to protect your horse from injury during transit. These items include fuzzy coverings for the halter to prevent rubs or burns, leg wraps or shipping boots, and bell boots, to name a few. Leg wraps and shipping boots can protect the horse's legs from injury and in some cases are designed to help physically support the legs. These items must be used properly or they may cause damage to the legs. Bell boots are soft, bell-shaped boots used to protect the sensitive areas around horse's hooves. They can also reduce the risk of a horse overstepping during imbalance and pulling a shoe.

Practice using these items on a horse before the trip. To reduce stress levels during transit, it is important for the horse be comfortable with the items. Temperature may also be an important factor when deciding which pieces of protective equipment to select. People who prefer to ship horses in blankets and boots may decide to forgo these items if they are shipping on a hot summer day in a trailer that is not climate controlled.

FINAL RECOMMENDATIONS

Advanced planning is the key to a successful trip with a horse. Evaluate horses before, during, and after transport, and monitor trailer temperature frequently throughout the trip. Do not transport horses with signs of distress or illness, and consider cancelling your trip if a horse develops signs of distress during transit. Select feed and bedding low in dust, and offer hay and water throughout the journey. Adhere to a comprehensive vaccination and health program to limit the risk of disease in your horse.

Stop every 4 hours to offer water and give horses the chance to lower their head and walk around. During long hauls, these breaks should last at least 30 minutes. When possible, bring water and hay from home to increase consumption and limit gastrointestinal problems. Choose high-quality hay to optimize nutrition and provide clean water. Also, make efforts to minimize emotional and physical stress along the way.

OTHER RESOURCES

- South Dakota Animal Industry Board. 2011. "Health Requirements Governing the Admission of Animals." <http://aib.sd.gov/stateimportrequirements.shtm#horses>.
- South Dakota State Brand Board. 2011. "Laws for Horse Owners." <http://www.sdbrandboard.com/horselaws.asp>.
- Tufts Veterinary School. 2005–2006. "Transporting a Horse." <http://www.tufts.edu/vet/sports/transport.html>.

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