

# BIG WHEELS

BY AMANDA DUCKWORTH



ANNE M. EBERHARDT

Using a licensed commercial shipper can be easier and cause less stress for the horse

**TEN YEARS AGO** Mine That Bird stunned everyone when he took the Run for the Roses at odds of 50-1. A most unlikely winner of the Kentucky Derby Presented by Yum! Brands (G1), part of his story wasn't just how he won, it was how he got there in the first place. His trainer, Chip Woolley Jr., had hauled Mine That Bird using his F-450 Ford truck and trailer from New Mexico to Louisville, Ky.'s Churchill Downs.

To say it was an unusual method of transportation for a high-class racehorse would be an understatement. Many trainers turn to a shipping company to help with cross-country travel, whether it be by trailer or by airplane.

"The industry has grown tremendously from 20 years ago, as transporters have grown their fleets and horsemen have given up the stress and cost of maintaining their own rigs," said Brook Ledge Horse Transportation's Brad Gotwals. "It is much easier and stress free than some think to use a commercial shipper."

One of the key issues that comes into play with transportation is keeping horses healthy.

Weight loss is a normal occurrence, and it is estimated that a horse will typically lose between 0.45-0.55% of its total body weight. That number goes up when considering international travel or horses battling illness. In regular circumstances, horses regain this weight in a matter of days.

Respiratory health is also always a major concern. Legs can be protected with wraps, but lungs need to be con-

sidered, too, as shipping fever can be a common occurrence.

"The severity of respiratory disease associated with transport can vary from mild upper airway inflammation to severe, life-threatening bronchopneumonia or pleuropneumonia," explained Dr. Andrew DeNome for the American Association of Equine Practitioners. "Horses should be monitored after transport for the development of respiratory disease. Signs to look for include cough, nasal discharge, fever, depression, and decreased appetite."

How a horse is cared for while in transit is extremely important. That means the biggest decisions someone relying on a carrier has to make when it comes to the health and safety of their horse happen before the horse ever steps on a van.

## USE TECHNOLOGY

Information is power, but in the Internet age, sometimes it is hard to know what information is legitimate and what is not.

"I think the biggest change from the information and technology side of things is that now you can type in 'horse transport,' and you will get a myriad of names, addresses, and phone numbers," said attorney Rob Kinsey, who serves as general counsel for the National Horse Carriers Association. "That can be a negative side of technology. Some of the sites indicate whether they are compliant with federal regulations. Some do not.

"You can look at 300 names and maybe a tenth of them are legitimate carriers because they comply with the laws. Prices drive a lot of customer activity, and I understand that, but there's more to it than just that."

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overwhelming array of options, doing one's homework is important. A quick way to know if a carrier is licensed is to ask for its United States Department of Transportation (DOT) number, which must be displayed on every rig.

Another avenue of research is the National Horse Carriers Association, which was founded in 1960 to encourage and promote high standards in the horse transportation industry.

"Number one is we follow the federal laws and regulations instead of trying to circumvent them," said Kinsey of the association. "There are all kinds of hours of service, equipment safety protocols, and tremendous amounts of red tape these guys have to go through to continue to comply with federal regulations when it comes to safety. It's amazing how the people that get into trouble are the ones not following safety regulations."

Of course, the flip side of technology is that everyone is more connected than ever before, and that extends to horse



ANNE M. EBERHARDT

Teaching horses to load and unload is an important aspect of transporting them safely

transportation. Records are becoming more and more digital, and requests are easier to deal with thanks to networking abilities.

"A big addition is electronic logs," said Kinsey. "They have gone from paper logs, which are methods by which drivers need to keep track of where they are and how long they are behind the wheel driving or off duty, etc. There have been a lot of changes in that respect.

"It's also great when you have a net-

work like the National Horse Carriers Association. They can go online among their group and identify a situation such as, 'We have three horses who need to go from A to B. We can't get to them for another six days. Is there anyone who is heading that way?' There's a lot of activity, and that should be a plus to the shipper's customers."

Computers undeniably have changed how both businesses and people operate. While they might have opened the

## MANAGING JOINT DISEASE AT EVERY STAGE OF LIFE

It's no secret that degenerative joint disease (DJD) is a top concern among veterinarians, owners, and trainers. What may be lesser known is that regardless of a horse's life stage, DJD can occur within any joint that consistently undergoes wear and tear, known as "use trauma."<sup>1</sup>

Young horses might develop lameness prematurely from conformational abnormalities. Mature performance horses might experience physical changes resulting in increased risk of injury or exacerbation of chronic injury. A common cause of DJD in aged horses is osteoarthritis, or end-stage DJD.

Catching the clinical signs, diagnosing DJD early, and starting treatment can help reverse the degenerative process before it progresses to irreversible damage joint cartilage.<sup>2</sup> Adequan® i.m. (polysulfated glycosaminoglycan or PSGAG), the only FDA-approved PSGAG, is an important first-line treatment due to its ability to produce disease-modifying effects.<sup>2</sup>

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<sup>1</sup> McIlwraith CW, Frisbie DD, Kawcak CE, van Weeren PR. Joint Disease in the Horse. St. Louis, MO: Elsevier, 2016; 33-48.

<sup>2</sup> McIlwraith CW, Frisbie DD, Kawcak CE. The horse as a model of naturally occurring osteoarthritis. Bone Joint Res 2012; 1: 297-309.



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1 Adequan® i.m. Package Insert, Rev 1/19.

2 Burba DJ, Collier MA, DeBault LE, Hanson-Painton O, Thompson HC, Holder CL: In vivo kinetic study on uptake and distribution of intramuscular tritium-labeled polysulfated glycosaminoglycan in equine body fluid compartments and articular cartilage in an osteochondral defect model. *J Equine Vet Sci* 1993; 13: 696-703.

door for those looking to make a quick buck without adhering to federal law, it also means owners can and should do their own research before selecting a company.

“Horse owners can best improve their horse’s journey by preparing themselves and the horse properly,” said Gotwals. “This can be done by researching the company and asking questions. Many transporters answer a lot of questions on their website.”

Additionally, the Federal Motor Carrier Safety Administration (FMCSA) promotes a website that allows anyone to check if a company has a “satisfactory” or “unsatisfactory” safety rating. Those that have been deemed unsatisfactory are not authorized to operate.

“The FMCSA spent some time out at Keeneland at the last sale in January just passing out some information to help carriers be aware of what the federal safety regulations require of them,” said Kinsey. “You can go online, type in the name of Sallee Horse Vans, or Brook Ledge, or whomever, and get their FMCSA record. It will identify if they are licensed carriers or not. It’s a critical factor.

“I have been doing this almost 50 years, and that is the one thing that has been the biggest frustration to us as an industry: people are not checking that last box and making sure

they have legitimate carriers.”

Anyone needing to do research on authorized carriers can visit <https://csa.fmcsa.dot.gov>. Scroll down and on the left-hand side there is a box labeled “Check Motor Carrier Safety and Performance Data.” The website is routinely updated.

## MORE DECISIONS

Assuming due diligence has been performed, and an authorized carrier is given the task of transporting a horse, there are still other factors to consider. One of the biggest is how that horse will travel.

Similar to a person choosing a seat on an airplane, while all types of van arrangements can get a horse there, not all of them are equal when it comes to ease of travel and comfort. When it comes to horses, the less stress put on them the better.

“One of the biggest changes we’ve noticed is the willingness, and also the demand, of using a box stall option for shipping,” said Gotwals. “There have long been studies naming the benefits of a box stall, such as the ability to put the horse’s head below their withers to avoid shipping fever and also the ability to move around freely.

“It appears to us that many owners and trainers are requesting this option rather than having to be sold on it. The horse can come off the road trip ready to train rather than needing a few days to recoup or see a veterinarian. The cost of the box stall is far outweighed by the benefit.”

Of course, another thing that has become far more commonplace is flying horses to their destination. For longer journeys, this obviously speeds up the amount of the time a horse is in transit, which has its own set of benefits.

“It is as safe as road transport, and far less stressful,” said Greg Otteson of H.E. “Tex” Sutton Forwarding Company. “Some trainers like to oil and medicate their horses for long road journeys. When you fly, the time spent traveling is a matter of hours and not days. Preventive medication and treatments are not needed. All horses need a current Coggins and Interstate Health Certificate, which mirrors road transport.”

As with road travel, how the horse is contained can help ease stressful situations, which is why it is important to work with reputable companies.

“The most common problems are colts or stallions wanting to be too friendly, or the occasional horse that is claustrophobic,” said Otteson. “We have a wide range of dividers to help with the over-friendliness, and most of time moving the horse to a larger stall makes the claustrophobic horses more at ease.”

## PROPER PREPARATION

Whether an owner decides to transport a horse by road or by air, there is another important step that should be taken before travel ever begins. It is far safer for everyone involved if the horse has had proper training.

“Horses should be trained or at least practiced at loading and unloading from trailers even if they are not a semi,” said

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ANNE M. EBERHARDT

Some of the common health issues connected with transporting horses are respiratory problems and weight loss

Gotwals. “The same way young horses are trained to walk through and break from the racing gates, it is best to do the same thing for trailering.

“This also ensures safe loading and unloading. Loading and unloading is most likely the time a horse would injure himself. The horse should also be accustomed to any accessories that are planned on being used for travel, such as wraps or shipping boots.”

Being properly prepared extends to those entrusted with the horse as well, and it is something those oriented toward safety take seriously. It is a two-way street between the customer and the transportation service.

“We gain experience with every flight, and we constantly strive to improve our horse handling and equipment,” said Otteson. “Owners should rely on the expertise of professionals and spend as much time on the ground handling their horses prior to flying.”

Experience is something Brook Ledge also relies on, and it has been using that knowledge to build its own custom horse vans for the last 25 years.

“We make our own procedures to maintain safety along with building our own trailers to make enhancements and upgrades to our vans to ensure safety and comfort,” said Gotwals. “We design, build, and repair all of our trailers, which are the industry standard. Anytime we make a modification or enhancement to a new trailer, we can then make that change in all of our trailers.”

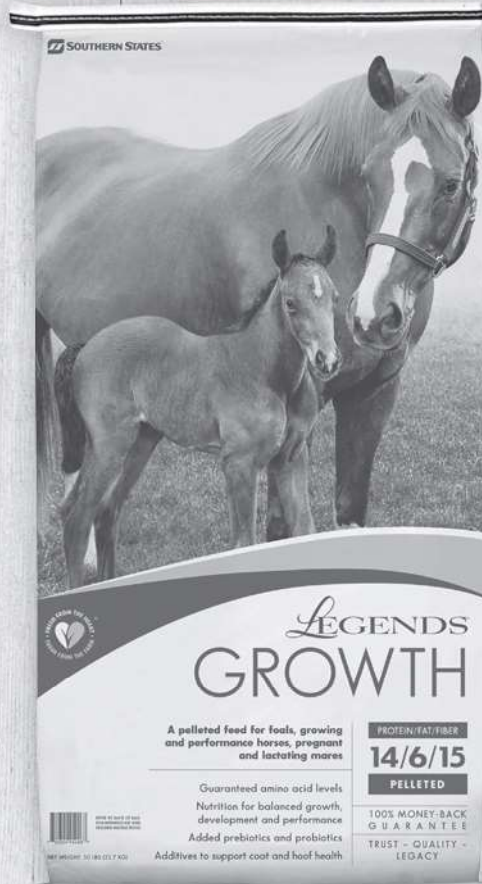
Ultimately, there are a number of reputable carriers out there to choose from, and that, along with properly preparing horses for travel, are important steps when it comes to keeping horses healthy and happy while traveling.

“I am not saying every unauthorized carrier is the worst carrier in the world and won’t get their cargo there on time safely,” said Kinsey. “It’s just a matter of if you want to take the risk. Do you want to take that chance?” **BH**

*Amanda Duckworth is a freelance writer based in Lexington.*

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MESSAGE FROM THE GRAYSON-JOCKEY CLUB RESEARCH FOUNDATION

## BREATHING EASY

BY DR. SUSAN J. HOLCOMBE

Grayson-Jockey Club  
Research Foundation

Horses are tremendous athletes with vast cardiovascular and respiratory capacity. Unlike people's, horses' athletic ability is limited by lung rather than heart function.

The equine respiratory system begins at the nose and continues to the tips of the lungs. Air is carried to the lungs through the nose, upper airways, and trachea (or windpipe), driven by contraction of a large muscle called the diaphragm. The lungs are composed of small tubes and sacs that permit exchange of gases between the lung and the bloodstream. Carbon dioxide produced in the body, especially skeletal muscles during exercise, is exchanged for oxygen, needed to power all organs and tissues in the body, including the muscles.

Horses at rest, standing quietly in a stall or grazing at pasture, use only a fraction of their lung volume. They breathe slowly, about 8–12 times per minute, inhaling only about 10 gallons of air per minute. During intense exercise such as racing, horses' respiratory rates might exceed 120 breaths per minute, and they might inhale in excess of 500 gallons of air per minute. If the lungs are not functioning perfectly due to inflammation or infection, the exchange of oxygen and carbon dioxide is compromised, and horses cannot race at top performance. Maintaining a healthy respiratory system is essential.

Multiple studies funded by the Grayson-Jockey Club Research Foundation have showed that environmental air quality impacts horses' lung function and is associated with successful and poorly performing racehorses.

Poor environmental air quality has been linked to the development of mild to moderate equine asthma or inflammatory airway disease in horses,

characterized by inflammation of the trachea and bronchi, with excessive accumulation of mucus and inflammatory cells in the airways. The airway inflammation leads to mild increased resistance to airway flow, limiting gas exchange within the lung. Airway inflammation is not trivial. Mild equine asthma is common and decreases racing performance in Thoroughbred racehorses. Mild to moderate equine asthma was diagnosed in 80% of racehorses sampled by Dr. Laurent Couetil and colleagues in a recent GJCRF funded study. The researchers identified that increases in certain cell types, mast cells, and neutrophils, isolated from fluid within the lungs, were associated with reduced speed figures. Additionally, these researchers found a connection between poor air quality and mild equine asthma.

Research by N. Edward Robinson and colleagues also found associations among poor environmental airway quality, development of mild to moderate equine asthma, and poor racing performance. This research emphasizes not only the importance of airway health to optimum performance in equine athletes but also the value of collaborative research among scientists, equine veterinarians at the racetrack, horse owners, and trainers.

What to do? Many racetracks are in urban areas where air quality is impacted by industrial pollutants and heavy metals. Barns contain airborne and respirable particulates, including dust, molds, endotoxin, and other organic and inorganic antigenic triggers

for airway inflammation.

Steps can be taken to improve the quality of air horses breathe, diminishing their risk of mild to moderate equine asthma and associated poor racing performance. Good ventilation is key. Keep windows and doors open to maximize air exchange in the barn. Move horses out of the barn during cleaning, an event associated with spikes in poor airway quality. Spray the barn aisles with water prior to raking and sweeping to limit dust. Feed horses on the ground, allowing contaminants to drain from the airways. If possible, do not store hay, straw, and bedding above the horse stalls where dusts will float into the stalls through the floor boards. Investing in a hay steamer might be worth it; results by Meriel Moore-Colyer and colleagues showed a 99% reduction in respirable particulates in hay after steaming with limited changes in the nutrition value.

In summary, improving horses' respiratory hygiene and airway quality is paramount to achieving and maintaining optimum racehorse performance and welfare. When horses develop signs of mild to moderate equine asthma, work with your veterinarian to develop a treatment and prevention plan. Continued partnership among researchers, racetrack veterinarians, horse owners, and trainers and support by the GJCRF will continue to unravel connections among the air they breathe, lung function, and performance. <sup>BH</sup>

*Dr. Susan J. Holcombe, works in the Department of Large Animal Clinical Sciences at the College of Veterinary Medicine at Michigan State University in East Lansing, Mich.*

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