

HORSES REQUIRE 3000% MORE OXYGEN WHILE TRAINING AND COMPETING THAN WHILE AT REST

Respiratory problems and especially airway disease continue to be the number one health issue for horse owners and trainers. Respiratory caused performance problems undermine promising careers and effect the true athletic potential of our horses.

Oxygen is essential to the performance horse! Athletic performance places extra demands on the respiratory system. Insufficient amounts of oxygen may be the most important factors limiting performance. For peak performance, equine athletes have to move large volumes of air efficiently in a short period of time (150 breaths a minute) during training and competition. Even a small increase in the amounts of mucus in the airways, and minor degrees of airway spasm or thickening of the lining of the airways will adversely affect performance.

Respiratory tract infections are practically unavoidable with competing athletes and highly prevalent in performance horses. Poor air hygiene has been identified as the causative factor of respiratory disease. The problems range from lower respiratory tract inflammation, which only becomes apparent when horses compete to severe distress in older horses known as COPD. Many horses lacking clinical signs of pulmonary disease are experiencing performance problems.

Because airflow problems have been difficult to diagnose, special care must be taken to prevent them. Proactively maintaining health by controlling dust is a priority today in both veterinary and human medicine. This approach is based upon educating ourselves with the knowledge needed to understand and maintain our horse's health and has direct benefits on riders as well as their horses.

As a result, health and achieving peak performance are the driving forces behind preventative techniques for fugitive dust emissions. Dust not only worsens air quality,

which impairs lung function and exacerbates lung and heart diseases, but also transmits infectious illnesses by carrying pathogenic bacteria and viruses into the respiratory system.

Heavy burdens of dust can decrease the ability of cells to fight infectious agents such as bacteria by overloading the lung's primary defense mechanism. A horse in a dusty environment will therefore be more prone to infection than a horse in a cleaner environment. As well as dust increasing a horse's susceptibility to infection, a horse suffering from a respiratory tract infection in a dusty environment will take a lot longer to recover than if it were breathing fresh air therefore increasing the duration and severity of episodes of infectious bacterial and viral respiratory disease. To maintain healthy lungs, it is imperative to minimize pollutants they are exposed to.

The successful environmental control of disease involves minimizing the horse's level of exposure to irritants. Stable management practices with emphasis on controlling airborne particulate matter are an essential component of treating and preventing respiratory disease. Attention to air quality is imperative in maintaining health and hastening recovery from an infection.

Watering, the most common method, provides only temporary dust control. It is perceived as an inexpensive means, but the perception is changing because of the high level of dust that exists when using only water. Many environmentally safe materials are available today that are cost-effective and durable but none have been particularly suitable for the equestrian industry until now.

ArenaRx® clean air for horse and rider is a revolutionary, new dust control management solution which enables equine athletes to attain peak health and performance by completely eliminating airborne dust.

— by Stephanie Marek

HORSES IN TRAINING AND COMPETITION REQUIRE LARGE AMOUNTS OF OXYGEN			
The Horse	Liters of air per breath	Breaths per minute	Liters of air per minute
at REST	5	12	60
at WORK	12-15	150	1800
AIR QUALITY IS VITAL TO HEALTH AND PEAK PERFORMANCE			

References

- Brockhoff, Tim, 1998 WEAS Convention, Allergies, Coughs, and Heaves
 Clark, Dr. Andrew F. and Susan L. Raymond, Equine Research Centre 1997, Equine Respiratory Health
 Clark, Dr. Andrew F. and Susan L. Raymond, Equine Research Centre 1997, Small Airway Disease & Equine Respiratory Health
 Clark, Dr. Andrew F. et al, Equine Research Centre 1996, Kinetics of Respiratory Disease in Horses
 Jones, William E. DVM, Air Flow: An important Limitation for Racehorses
 Webster, John and Dr. Andrew F. Clarke, Air hygiene in stables and chronic obstructive pulmonary disease in the horse.