Investing in the Future of Thoroughbred Racing

RISK FACTORS IDENTIFIED THROUGH THE EQUINE INJURY DATABASE

In 2005 the Grayson-Jockey Club Research Foundation board of directors began an internal discussion examining the decline in starts per starter and asking the question, was this decline related to the durability of the horse or to safety and welfare issues? So, they started researching existing studies on racing injuries and soundness, and developing pertinent statistical data from race records. They also announced the Welfare and Safety of the Racehorse Summit (Summit).

The inaugural Summit was a two-day workshop for presentations, panel discussions, and strategic planning concerning the welfare and safety of the Thoroughbred racehorse underwritten by Grayson and The Jockey Club. After quickly realizing the starts per starter issue was much larger than this Summit could address, Summit participants quickly adopted that:

> ***The welfare and safety of the horse should be the guiding principle in the decision-making process for all segments of the horse racing industry.***

At Summit in 2006 participant discussion quickly centered on the lack of data related to horses suffering an injury or a fatality during racing. They identified the need for an establishment of an injury database regarding equine injuries and/or fatalities on all racing surfaces in all jurisdictions and publicize the results.

So, in June 2007 the Equine Injury Reporting System pilot program began at 30 tracks with a threefold goal: to identify the frequency, type and outcome of racing injuries using a standardized format that will generate valid composite statistics; to develop a centralized epidemiologic database that could be used to identify markers for horses at increased risk of injury; and to serve as a data source for research directed at improving safety and preventing injuries.

The centerpiece of the system is a standardized form that will be used by racetrack veterinarians to identify what happened to an injured horse. The injured horses will not be identified at any time, and tracks will be able to compare their individual statistics to the aggregate statistics.

After a successful pilot project, the Equine Injury Database (EID) was launched in 2008 free to the industry. Since The Jockey Club created the free Equine Injury Database in 2009, the industry has decreased on-track race-related fatalities by 37.5%, to 1.25 per thousand starts.

Risk Factors Associated with Fatal Injuries in Thoroughbred Racehorses Competing in Flat Racing in the United States and Canada *published- JAVMA, Vol 249, No. 8 10/15/2016*
Tim Parkin, University of Glasgow

At the most recent Summit in 2022 Parkin reported that since the database was launched over a decade ago, annual fatality figures on all racing surfaces have reduced by 30.5% from a high of 2.1 per thousand starts in 2009 to less than 1.5 in 2021. In addition, fatality risk has reduced by 35.6% since 2009 for dirt racing specifically.

Based on the 2022 data, 99.88% of flat racing starts at the racetracks participating in the EID were completed without a fatality. In support of the Equine Injury Database Dr. Tim Parkin developed and maintains a set of risk factors that he presents at each Summit and also assist veterinarians with developing local risk factors for individual tracks. The risk factors are related to age, sex, surface, distance, trainer change, type of race, racing history, time off from racing, age of first start, high speed furlongs, previous injuries, appearance on a vet's list, previous injury are among the 20 different factors associated with risk of fatal injury.

OTHER PROJECTS FUNDED SINCE 1999 FOR THOROUGHBRED SAFETY INCLUDE THE FOLLOWING:

Racetrack Interface Effect of Shoeing on Impact Trauma
David Nunamaker
University of Pennsylvania

Performance Parameters for Engineering Track Management
C. Wayne McIlwraith
Colorado State University

Effects of Dirt, Turf & Polytrack Racing Surfaces on Hoof Loads
Susan Stover
University of California - Davis

Race Surface Optimization for Fetlock Injury Prevention
Susan Stover & Mont Hubbard
University of California - Davis

Training And Surfaces For Injury Prevention
Susan Stover
University of California - Davis

Robotic CT for Assessing of Bone Morphology
Kyla Ortved
University of Pennsylvania
Funded by OAKLAWN RACING • CASINO • RESORT

Standing PET of the Racehorse Fetlock
Mathieu Spriet
University of California - Davis
Funded by JOHN WILLIAM POPE FOUNDATION

Predicting Exercising Arrhythmias With Resting ECGs
Molly McCue
University of Minnesota
Funding by USEA

Bisphosphonate Effects on Biomarkers & Bone Metabolism
Heather Knych
University of California - Davis
Funded by St. Elias Stables

Effects of Low-Dust Forage on Lung Health of Athletic Horses
Laurent Couetil
Purdue University

Training Programs for Prevention of Fetlock Injury
Susan Stover
University of California - Davis
Funding by Churchill Downs, Keeneland

Racehorse Stride Characteristics Injury and Performance
Chris Whitton
University of Melbourne
Funding by WinStar, NYTHA, Temple Gwathmey Steeplechase Foundation

INDUSTRY INITIATIVE IDENTIFIED FROM THE INAUGURAL WELFARE & SAFETY OF THE RACEHORSE SUMMIT

Racing Surfaces Testing Laboratory

The Racing Surface Testing Laboratory was launched in 2009. This one-of-a-kind lab works with racetracks performing more than 40 different surface tests.

The tests include not only the composition of the racing surface materials, but also the use of a biomechanical track tester. The tester makes it possible to analyze the dynamics between the racing surface and the hoof at gallop and is used in both Europe and North America for research and testing of racing and other equestrian surfaces.

All of the data is included in comprehensive databases of surface maintenance and weather that provide the potential to develop further insight into the factors affecting racing surfaces. The database also provides maintenance personnel with the information needed to assist with track maintenance decisions.

To help fund research please click here

Grayson-Jockey Club Research Foundation

Reprint from The Grayson Gazette, 2023