

HORSE SENSE: The future of pre-training horses?

By Leanne O'Sullivan on 11 August 2017



Kurtsystems' cabins can take up to 10 horses at varying speeds, from a trot to a canter, around the all-weather surface

The Kurtsystem rail technology allows up to 10 horses to be exercised simultaneously, without riders

OVER the past 20 years Mehmet Kurt, one of Turkey's leading industrialists and entrepreneurs, has been developing a new horse training system that is designed to aid the pre-training of young racehorses before they enter a traditional training regime.

His innovation, Kurtsystem, allows up to 10 horses to be exercised simultaneously, without riders, while also allowing customised electronic fitness monitoring equipment to measure and record the physiology of each horse during exercise.

The Kurtsystem prototype was installed on Kurt's farm in Turkey in the early 2000s and has been continually improved and developed for the last decade.

The latest version of the Kurtsystem, which is estimated to have cost £20m, has been installed at Kingwood Stud in Lambourn and was unveiled at the end of last month.

THE TECHNOLOGY



The Kurtsystem is a monorail design, with each horse harnessed into a cabin – of which there are 10 in total – allowing each to work at varying speeds, from trot to canter, round a mile long all weather surface. Loose connecting reins allow each horse freedom of movement to make exercise as natural as possible.

The system can be shut down by the operator travelling in the control car behind the horses. Automatic shutdown also checks in via sensors on the tethers if a horse stumbles or falls.



The cabin at the back is also used to assess each horse individually, checking their heart rate and blood pressure, among other indicators. Medical technology on each of the compartments monitor heart, respiratory, bone and muscular development mapping the horses' physical and mental development throughout their initial training.

The horse's individual level of fitness can also be determined by measuring heart rate, gait, and respiratory functions, combined with recorded measurements of exercise work load. This allows a

trainer to optimise the horse's exercise regime according to the medically recorded data and, consequently, helps the trainer to better detect fitness problems before they become an issue later in the horse's pre-training programme.

BENEFITS



The system is designed to run at speeds of up to 35mph and horses could work for up to an hour a day, with the weights gradually increased on each horses back, starting at 20kg and peaking at 60kg.

The Kurtssystem introduces young horses to a pre-training programme without the threat of human error, in a closely monitored and controlled environment.

It is also suited to the rehabilitation of older horses, such as National Hunt chasers or hurdlers, which have either been injured or suffered fitness issues, and can also support eventers and dressage horses.

Whether this system revolutionises the way we train our horses will depend on trainers, owners and breeders.

MEHMET KURT



MEHMET Kurt has always had an affinity with thoroughbreds and has experienced success as an owner and breeder in Turkey, twice winning the Turkish Derby.

His first triumph came in 1992 with The Best and was followed in 1999 by Bartrobal.

Kurt's ambition is to improve the evolution of the horse and strengthen its physical and mental preparedness to handle modern training regimes.

Horse welfare was the motivation behind the development of KurtSystems, Kurt hoped to improve the standards of horse training and welfare with evidence based and scientifically supported new pre-training methods.

Dr Robert Curtis is the KurtSystems technology consultant and has been involved with the evolution of KurtSystems for many years.

Dr Curtis graduated from the University of Kent with a BSc (Hons) in Electronics and gained his Ph.D in Biomedical Engineering and Veterinary Physiology from the University of Sydney in 2008.

He is a senior member of the Institute of Electrical and Electronics Engineers (IEEE) and member of the Engineering in Medicine and Biology Society (EMBS).

He has worked in the biomedical engineering industry for over 30 years, providing healthcare research for horses, dogs, cats, sheep and humans.