Selecting stallions & mares for Eventing Breeding

Exactly ten years ago Horse International published an article I wrote entitled “The Accidental Eventing Breeder?” In it I pondered the question: Will international eventing horses of the future mostly be the product of conscious efforts by breeders or will they mostly be “happy accidents”? A lot has changed in the sport and breeding over the last decade but my prediction that there will be fewer dedicated evening breeders in the future because of the changes in the format for top-level events that require a different type of eventer and the relative lack of financial reward compared to breeding showjumpers and dressage competitors appears to have come true. How can we move from breeding “happy accidents” to purpose-bred eventing athletes? And how can we breed eventing athletes that are more likely to be successful in top sport? The Warmblood Studbook of Ireland (WSI) has developed a selection system that may prove useful.

Using scores of 1-10.

All stallions and mares presented for approval are assessed along dimensions using scores of 1-10. Each trait is assumed to have a normal, bell curve distribution in the population. A score of 6 is “sufficient”, and is the minimum studbook standard. About 50% of horses in the population score lower than 6 on each dimension. A score of 7 is “more than sufficient”, and this means that about 70% of horses in the population score lower. A score of 8 is “good”, and this means that about 85% of horses score lower. A score of 9 is “very good”, and this means that about 98% of horses score lower. And a score of 10 is “excellent”, and this means that about 999 horses out of a thousand score lower on this trait. In practice we expect to see scores of 7 – 9, and no score may be less than six, in stallions and mares approved for breeding.

All stallions and mares, irrespective of breeding direction, are assessed for these traits.

The Trakehner stallion Grand Marnier (by Steinburg and out of GillMar Dream Girl AA by Mister Glitter XX) is the first purpose-bred eventing stallion approved by WSI.
ALL STALLIONS AND MARES, IRRESPECTIVE OF BREEDING DIRECTION, ARE ASSESSED FOR THESE TRAITS:

Jumping, Eventing & Dressage
(a) sire’s pedigree
(b) dam’s pedigree
(c) type
(d) topline
(e) forelegs
(f) hindlegs
(g) walk
(h) trot
(i) canter
(j) elasticity
(k) athleticism
(l) rideability
(m) balance

AND FINALLY EVENTING STALLIONS AND MARES ARE ASSESSED ALONG THESE ADDITIONAL FIVE TRAITS:

Eventing
(a) gallop
(b) stamina
(c) courage
(d) 5th leg
(e) blood in athleticism

Just because a stallion is a Thoroughbred...
Just because a stallion is a Thoroughbred or a true half-bred (i.e., the horse has a Thoroughbred, Anglo-Arab, Shagya Arab, or Arab sire or dam), and does well on the cross-country evaluation, does not mean it is ideal for eventing breeding. The blood stallion or mare must possess a genetic endowment highly suitable for eventing breeding. And it must be able to pass on superior riding horse qualities (three good gaits, elasticity, balance, rideability, and jumping ability) along with additional traits required for eventing sport. To gain an insight into the horse’s genetic endowment specifically targeted at eventing WSI introduced into our selection system the genomic “Speed Gene” test developed by Professor Emmeline Hill and offered by Plusvital. At this time the test can be performed only on Thoroughbreds but in the future we hope that it can be used on other pure-breds and half-breds.

Three Types
The Speed Gene test categorises horses into three distinctive types based on a proprietary test performed on the horse’s DNA: C:C Sprint/Mile Types, C:T Middle Distance Types and T:T Staying Types. We expect that superior stallions and mares for eventing will be of the T:T and C:T Types, and at else equal stamina and short distance horses (C:C Types) are to be avoided. WSI also uses DNA analyses to test for the genes associated with osteochondrosis and for the mutated allele associated with Fragile Foal Syndrome (WFFS1). Pure-bred and half-bred stallions and mares approved for eventing breeding through these selection criteria potentially offer valuable out-cross genetics for showjumping breeding. This possibility of diversification could help make financially viable an investment in a focused program of eventing breeding.

Final five traits
These final five traits are assessed on the cross-country course with the horse ridden by the horse’s own rider and, if a stallion, also on a second day ridden by the WSI Test Rider. The gallop and stamina criteria are set to reflect the age, development, and fitness of the horse. The galloping distance is 3,000 - 6,500 metres at 600 – 730 metres per minute. The jumping obstacles are jointly decided by the rider and inspectors to take into account the horse’s stage of training and development, safety, and horse welfare.

5th leg
A few words should be said about the trait 5th leg. William Micklem provides a good definition of this trait: “If your horse looks at what he is jumping, makes automatic alterations, has quick reactions when getting too close or far away from a fence, or when slipping or tripping, he can be said to have a ‘fifth leg’.” (https://www.horseandhounds.co.uk/features/william-micklem-training-your-horses-fifth-leg-20025N235tUk8q05nPcMyv99) I would add to Micklem’s definition that a horse with a 5th leg is bold but not reckless, and has a rider who is correctly confident in his or her horse’s split-second decision-making ability. This trait (along with stamina) is especially important as the type of horse used in eventing sport has changed from Thoroughbreds and half-breeds to warmbloods with lower percentages of Thoroughbred blood. Tired horses make mistakes, and tired horses that are unable to react quickly to get themselves and their riders out of trouble make the most serious mistakes. But horses with a 5th leg are more likely to save themselves and their riders from catastrophic failures.

In the 2017 inspection for approval for the eventing breeding direction Grand Marnier scored 8 for gallop, 8 for stamina, 9 for courage, 9 for 5th leg, and 8 for blood in athleticism.