

Test Results Summary

Owner: Example Stud

3rd Feb 2017

Sample ID	Horse Name	Sire	Dam	Sex	Year of Birth	Speed Gene Test	Projected Height Test	Elite Performance Test v3.0			Distance Plus (ANZ) v1.0	Distance Plus (EU) v1.0	Distance Plus (USA) v1.0	Distance Plus (SAF) v1.0	Raced / Unraced v1.0	Dirt V Turf v1.0
								Inbreeding Value	Racing Value	Breeding Value						
-	Example A	Sire A	Dam A	Female	2000	CT	Medium	Medium	1*	2	CT-Long	CT-Long	CT-Long	CT-Long	Low Potential	Turf Pro
-	Example B	Sire B	Dam B	Female	2000	CC	Small	Low	2	3	CC-Short	CC-Short	CC-Long	CC-Short	High Potential	Dirt Pro

Horse Details

3rd Feb 2017

Owner Example Stud	Sample ID -	Country of Birth Ireland
Horse Name Example A	Sire Sire A	Dam Dam A
Sex Female	Month of Birth January	Year of Birth 2000

Elite Performance Test v3.0

Genomic Racing Value
 This individual's chances of being elite are 2.1 times better than average.



Genomic Inbreeding Value
 This individual has a typical number of identical genetic variants for a Thoroughbred



Genomic Breeding Value
 This individual has a slightly higher than average potential of passing on positive markers related to elite racing performance



Speed Gene Test

Mid-distance type. See Tests Explained for best distance for your region.
 Breeding Potential: Can produce C:C, C:T or T:T (sprint, mid-dist & stamina)



Distance Plus v1.0

This individual is more likely to be a long-range C:T mid-distance type



This individual is more likely to be a long-range C:T mid-distance type



This individual is more likely to be a long-range C:T mid-distance type



This individual is more likely to be a long-range C:T mid-distance type



Test Results

Race/Unraced v1.0

This individual is 20% less likely to have a racecourse start than a Higher Potential score.



Dirt/Turf v1.0

80% of these individuals are best suited to turf racing



Projected Height

Mature height at withers 163.44cm +/-2.54cm (approx. 16.0hh). Can produce small, medium or tall type horses



Horse Details

3rd Feb 2017

Owner Example Stud	Sample ID -	Country of Birth Ireland
Horse Name Example B	Sire Sire B	Dam Dam B
Sex Female	Month of Birth February	Year of Birth 2000

Elite Performance Test v3.0

Genomic Racing Value
This individual's chances of being elite are 10% better than average



Genomic Inbreeding Value
This individual has a lower than typical number of identical genetic variants for a Thoroughbred



Genomic Breeding Value
This individual has a slightly lower than average potential of passing on positive markers related to elite racing performance



Speed Gene Test

Sprint-mile type. See Tests Explained for best distance for your region.
Breeding Potential: Can produce C:C, C:T (sprint or mid-distance)



Distance Plus v1.0

This individual is more likely to be a short-range C:C sprinter

Australasia



This individual is more likely to be a short-range C:C sprinter

Europe



This individual is more likely to be a long-range C:C sprinter/miler

North America



This individual is more likely to be a short-range C:C sprinter

South Africa



Test Results

Race/Unraced v1.0

This individual is 20% more likely to have a racecourse start than a Lower Potential score.



Dirt/Turf v1.0

75% of these individuals are best suited to dirt racing



Projected Height

Mature height at withers 161.08cm +/-2.54cm (approx. 15.3hh). Can produce small or medium height horses

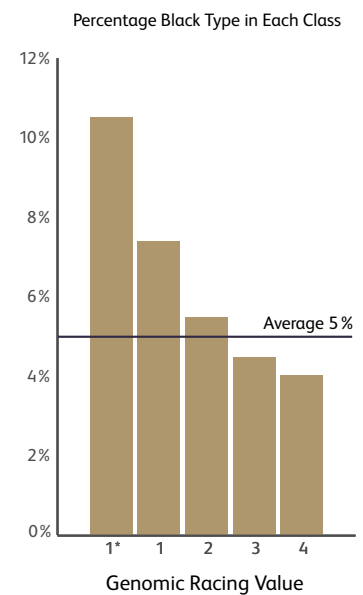
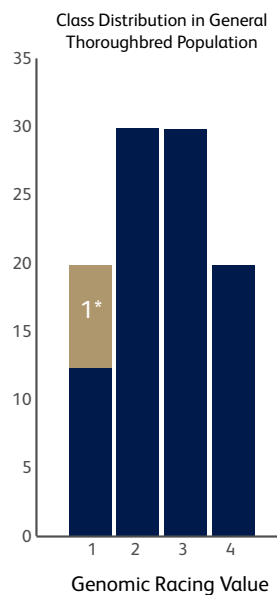


Elite Performance Test v3.0

Genetics contributes up to 40% of the variation in performance ability. The Elite Performance Test v3.0 provides a Genomic Racing Value, Genomic Breeding Value and Genomic Inbreeding Value to inform management and training decisions.

Genomic Racing Value

A Genomic Racing Value (GRV) of 1–4 is assigned to each horse. A Class 1 horse has the greatest potential to be an elite racehorse, while a Class 4 horse has the lowest potential. Class 1* indicates Class 1 individuals that are at the top of the range.



Genomic Breeding Value

The Genomic Breeding Value (GBV) represents the potential for a broodmare or stallion to produce offspring with a higher potential for elite success.

This is based on an assessment of the favorable genetic variants that can be passed on to the foal.

Each horse is given a Genomic Breeding Value (GBV) of 1–4, where a value of 1 indicates the highest probability of producing elite racehorses.

Genomic Inbreeding Value

The Genomic Inbreeding Value evaluates the actual level of inbreeding in a Thoroughbred horse, which can be used to inform future mating decisions. Each horse is given a value of Low, Medium or High for Genomic Inbreeding.

A high value means that the individual has inherited a significantly greater proportion of identical genetic information from sire and dam.

Speed Gene Test

Best race distance and precocity potential can be predicted through the analysis of a specific marker within the myostatin (MSTN) gene, where the code contains either the DNA marker C or T.

Each individual has two copies of the gene, one inherited from each parent, so there are three possible combinations of the genetic markers, C:C, C:T and T:T.

Speed Gene Type	Europe	ANZ	USA	Precocity
C:C	90% had best race distance of 1 mile or less 2% had best race distance of 10f or more	91% had best race distance of 1600m or less 62% had best race distance of 1300m or less	82% had best race distance of 1 mile 1/8 or less 51% had best race distance of 7.5f or less	Average age at first win: 32 months
C:T	78% had best race distance of 7-12f 53% had best race distance of 10f or more	60% had best race distance of 1500m+ 22% had best race distance of 1300m or less	67% had best race distance of 7-9f 20% had best race distance of 7.5f or less	Average age at first win: 35 months
T:T	8% had best race distance of less than 1 mile 81% had best race distance of 10f or more	80% had best race distance of 1500m+ 52% had best race distance of 2000m+	67% had best race distance of 1 mile 1/8 or more 38% had best race distance of 10f+	Average age at first win: 40 months

Distance Plus v1.0

Distance Plus v1.0 refines the best race distance predicted by the Speed Gene, through the analysis of thousands of additional genetic markers, separating horses into short or long C:C, C:T or T:T.

Different genetic arrangements are analysed for four of the major global racing regions to increase accuracy in prediction. The same horse could potentially be a "C:C-short" in North America but a "C:C-long" in Europe due to different suitability for different regions.

	Average Best Race Distance (Global)
C:C-short	1339m
C:C-long	1500m
C:T-short	1720m
C:T-long	1865m
T:T-short	2042m
T:T-long	2306m

Raced/Unraced v1.0

It is understood that there are multiple reasons as to why an individual might never make it to the racetrack. Raced/Unraced v1.0 analyses the genetic contributions that may underpin these traits. Horses are ranked as Higher Potential, Medium Potential or Lower Potential for a racetrack start.

Higher Potential males have a 1.6x (60%) greater chance of having a start in their two or three-year-old season than Lower Potential.

Higher Potential females have a 1.2x (20%) greater chance of having a start in their two or three-year-old season than Lower Potential

Dirt vs. Turf v1.0

Dirt vs. Turf v1.0 indicates genetic affinity of an individual for achieving their best win on dirt or turf surface.

Horses are categorised as:

- Turf Pro – 80 % suited to turf racing
- Turf – 50 % suited to turf racing
- Dirt – 64 % suited to dirt racing
- Dirt Pro – 75 % suited to dirt racing

Projected Height

Mature height at withers can be predicted from birth within 2.54cm (1 inch), with a 70% success rate, based on DNA analysis of the LCORL/NCAPG gene region and the sex of the horse.

Genetic Type	Physical Type	Projected Height	Breeding Potential
A:A	Small	Female 161.08cm (approx. 15.3hh) Male 162.80cm (approx. 16hh)	Can only produce small or medium horses
G:A	Medium	Female 163.44cm (approx. 16hh) Male 165.14cm (approx. 16.1hh)	Can produce small, medium or tall horses
G:G	Tall	Female 168.28cm (approx. 16.2hh) Males 168.28cm (approx. 16.2hh)	Can only produce medium or tall horses