



# Determining A Horse's Optimum Race Distance

## Case Study: Newmarket-Based Trainers

Plusvital conducted a study of 227 horses from the yards of three Group One winning, Newmarket-based trainers using the Racing GenePak genetic test bundle.

The Racing GenePak combines Plusvital's most popular genetic test, The Speed Gene Test, with the more advanced Distance Plus Test, which predicts a horse's optimum race distance to within a couple of furlongs. The Speed Gene Test allows optimum race distance and precocity potential to be predicted with over 90% accuracy, giving additional information that can be used in training, breeding and selection decisions.

The results of this study yielded a number of interesting findings, see overleaf for more details. ►

### Test Prices

**Speed Gene Test Only**

€295

£260

**Racing GenePak**  
(Speed Gene + Distance Plus)

€435

£380

## How To Order



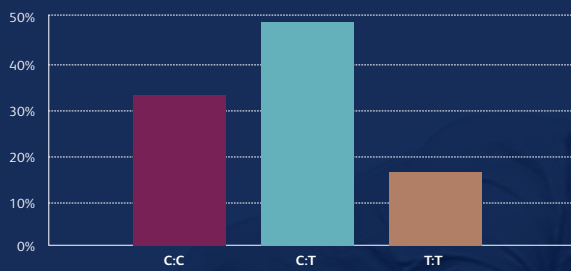
**IRE / UK / EU:** +353 (0) 860463187  
**AUS / NZ:** +61 (0) 499585951

**INTERNATIONAL:** +353 (0) 860416121  
**US:** +1 (0) 8593513217



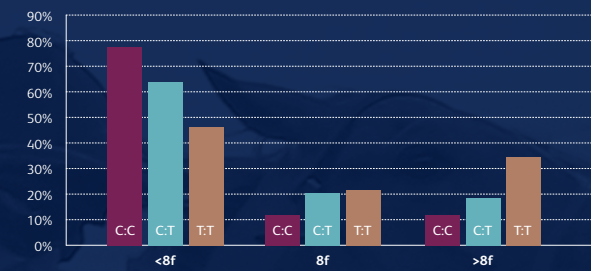
[info@plusvital.com](mailto:info@plusvital.com)

% Population (n=227)



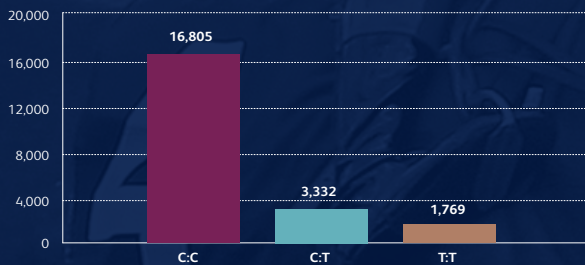
- 50% of all horses tested within the study were categorised as C:Ts, with 33% and 17% of horses testing as C:Cs and T:Ts respectively.
- 93% of horses tested achieved a racecourse start
- 75% of horses tested won a race at some stage in their careers
- 17% of horses tested won a race on their first time out:
  - 42% of C:Cs won first time out
  - 39% of C:Ts won first time out
  - 18% of T:Ts won first time out.

Speed Gene Test: Lifetime Shortest Distances Tried (f) (n=212)



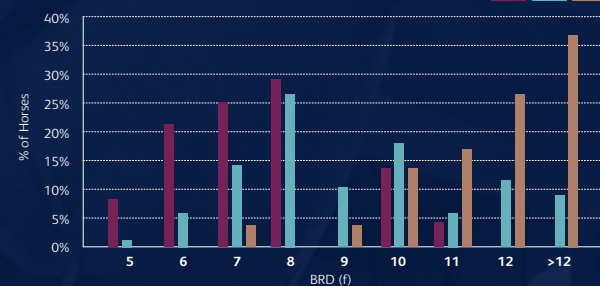
- 46% of T:Ts were tried at less than a mile, but only 3% of these same horses won their best race at this distance
- 12% of C:Cs were never given the opportunity to run at a mile or less, even though they may have been more suited to shorter distances.

Average Two-Year-Old Earnings per Horse (£) (n=130)



- C:Cs earned greater than nine times more on average as two-year-olds than T:Ts
- C:Cs achieved an average strike rate of 28% in their two-year-old season, while average strike rates for T:Ts reached just 13% as two-year-olds.

Speed Gene Test: Lifetime BRDs - All Winners (f) (n=170)

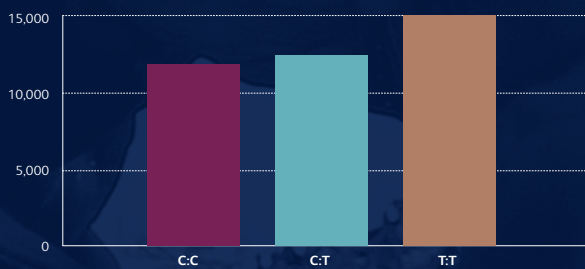


- 83% of C:Cs have a BRD of 8f or less
- 85% of C:Ts have a BRD of 7-12f
- 93% of T:Ts have a BRD of 10f+.

BRD = Best Race Distance:

The distance of the highest grade of race that an individual has won.

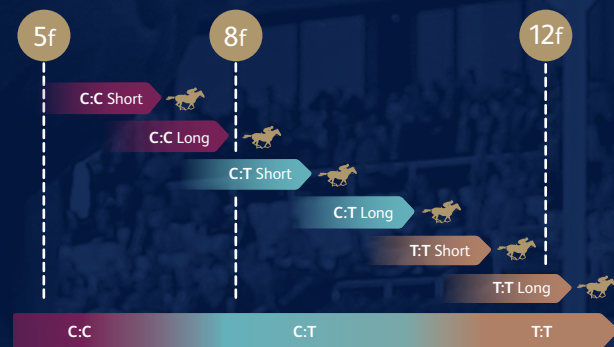
Average Three-Year-Old Earnings per Horse (£) (n=205)



- T:Ts achieved greater three-year-old earnings on average than C:Cs and C:Ts
- T:Ts achieved an average strike rate of 25% in their three-year-old season, while average strike rates for C:Cs reached just 16% as three-year-olds

Distance Plus Test: Further refine a horse's BRD to within a few furlongs

Average BRD (all races) (f) (n=165)



- 89% of C:C Shorts have a BRD of 8f or less
- 20% of C:C Longs have a BRD of 9f+
- 0% of C:C Longs had a BRD greater than 11f
- 82% of C:T Shorts have a BRD of 10f or less
- 90% of C:T Longs have a BRD of 8f+
- 77% of T:T Shorts have a BRD of 7-12f
- 100% of T:T Longs have a BRD of 10+.

### The results of this study assists trainers in:

- Determining optimum race distance
- Informing expectations on two-year-old performance
- Increasing strike rates and earnings through optimised training and racing decisions.