

# A Star is Born...?

## What a Stud

Who is first to place their bet on a race? Racehorse breeders.

Breeding a racehorse is an art and a science. Pedigree, heredity, fertility, finances, timing—wagers are placed on many variables.

### SOME RACEHORSE GENETIC TRAITS INCLUDE...



GAIT



ATHLETICISM



HEART SIZE

### SOME BREEDERS ARE ON THE LOOKOUT FOR...



CONFORMATION



FAMILY



TEMPERAMENT

**"Conformation":** Proportionate dimensions, especially of an animal

**"Parturition":** The action or process of giving birth to offspring

### Bloodlines of the Breeds: The Apple Doesn't Fall Far from the Tree



**Thoroughbreds:** Almost all of the world's half a million Thoroughbreds are descendants of 28 ancestors.

**Standardbreds:** All modern Standardbreds trace back to Hambletonian, grandson of an English Thoroughbred.

**Quarter Horses:** From 1660s America, QHs are a cross between horses of Spanish origin and English horses.

## MAKING A RACEHORSE

1

Working Overtime



Equines are long-day breeders that require *about* 16 hours of photostimulation for 60-90 days to trigger fertility. Artificially lighting mares' stalls in the evenings when winter days are shorter—alongside hormones and technology—has increased foaling rates from 50% up to 80%.

2

Make Me A Match



When it's time to get pregnant (February to June), the old-fashioned way is known as "live cover" and is the only permissible way to impregnate a Thoroughbred. Standardbreds and Quarter Horses may also be artificially inseminated using fresh, frozen or cooled semen, or by embryo transfer.

3

The Wait Is On



Pregnancy lasts an average of 340 days—about 11 months. An ultrasound exam can pick up a heartbeat by day 23, and the sex of the fetus by day 70. By month 6, the fetus is no bigger than a Beagle; 60% of growth occurs in the final three months. The likelihood of twins is about 16%.

4

Welcome to the World



Horses often foal out at night or in early morning. Delivery lasts about 20 minutes. Newborns can stand and nurse within an hour. Behavioural or physiological changes (bagging up, waxing) and technology (monitors, devices) alert horse owners that their horse is about to give birth.

### ALL RACEHORSES ARE BORN ON JANUARY 1ST?!

No—but they all have the same "birthday." At breeding season, this means trying to time the birth of a foal as close to but not before January 1 to be at an advantage in size and maturity when competing against other horses born in the same calendar year.



**What makes a sire desirable? The successful careers of the sire, his ancestors, and his offspring**

#### Pedigree

Ancestral map of his bloodline

#### Lifetime Average Earning Index

Average purse earnings of his progeny

#### General Sire List

Total earnings of his active progeny

#### Black-Type Wins

Number or percentage of stakes races won

**\$900,000**

Galileo is the world's most expensive sire. His stud fee is reputed to be nearly \$1 million.

### HELLO my name is

#### THERE ARE MANY LIMITS

Racehorse names aren't creative just for the fun of it! Multiple Breed Registry rules & traditions guide naming.



When a stud book—think of it like a dance card—isn't capped, a top stallion can breed 200-300 mares in a season by live cover.



**FAST FACT** On average, colts are carried four days longer than fillies

### THE SPEED GENE

The "Speed Gene" was singularly linked to the most favourable racing distance for a horse, based on late- or early-developing skeletal muscle.



**DID YOU KNOW?**

"Despite the enthusiasm of equine geneticists, genetically perfect animals can still run like donkeys. Training, nutrition, the jockey and the track conditions can be more important on race day; geneticists estimate that DNA probably accounts for 30-35% of a horse's performance."



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