15 Facts About Breeding Sport Horses

The basic mechanics of breeding performance mares and stallions are no different than with any other horse. And, today, assisted reproductive techniques—such as embryo transfer or artificial insemination with fresh or frozen semen—are used throughout much of the horse industry. However, the sport horse’s specialized career and competitive demands can make finding time for making babies tough. With those challenges in mind, settling a successful show mare (or her surrogate) and collecting viable semen from a highly sought-after performance stallion is often well worth the investment for owners.

1. Many performance mares are actively competing and have full training and show schedules, which makes finding time in their calendars for breeding, carrying a foal, or embryo transfer difficult. Mares are seasonal breeders, with April and May being the optimal time for producing a pregnancy. Breeding during the “off season” requires planning and veterinary intervention. [TheHorse.com/31365]

2. A performance stallion is an athlete who works hard in training and competition, and old injuries or wear-and-tear can leave him with discomfort in his back, pelvis, or hocks. If a stallion starts associating that pain with mounting a mare or breeding dummy, or ejaculation in general, he could experience a reduced libido. [TheHorse.com/30977]

3. Age is an important factor in mare pregnancy rate success. Younger mares (still in the single digits) and nonmaiden mares (those with a successful breeding history) have better conception rates than those bred later in life. Often, however, young sport horse mares go into the training barn early in life rather than heading to the breeding shed, and waiting to breed her until she’s in her teens can present fertility challenges. [TheHorse.com/37200]

4. Scientists have found that non-steroidal anti-inflammatory drugs can cause failure to ovulate in mares. [TheHorse.com/37065]

5. An older maiden mare in her teens and those older mares who’ve donated embryos repeatedly during their lifetime might not have a cervix that will relax properly, leading to delayed uterine clearance post-breeding and subfertility. [TheHorse.com/37200]

6. Studies have found that exercise—such as that involved in active training—causes cortisol (aka, the stress hormone) levels to increase. Even moderate exercise seems to impact the pre-ovulation surge of luteinizing hormone and the vascular profusion necessary for ovulation. Combined, these factors can have a negative effect on overall mare fertility and pregnancy rates. In one study, only 44% of mares that received moderate (30 minutes) daily exercise during the peri-ovulatory period had successful embryo recovery, compared to 67% of the nonexercised mare control group. [TheHorse.com/37200]

7. The stress of exercising in warm weather might also have a negative impact on embryo survival and lower mare pregnancy rates. [TheHorse.com/37200]

8. Stallions, like mares, are seasonal breeders and produce approximately twice as many sperm during April and May than in other months. For a stallion that’s actively competing, April and May might also be prime show season, meaning it’s more practical to collect semen for freezing during the “off months.” [TheHorse.com/31187]
Using frozen semen requires more precise mare management than using fresh or cooled, because breeding must happen closer to ovulation. TheHorse.com/37200

Researchers have confirmed that stressed mares are less likely to become pregnant than those managed in a relaxed setting. TheHorse.com/37065

Body condition score (BCS) influences a mare’s breeding success. Veterinarians typically recommend a BCS of 5-6 on the 9-point Henneke scale for mares intended for breeding. TheHorse.com/35630

Stallions often have to first prove themselves in competition to be desirable studs. After years of being on his best behavior around mares at shows, a stallion might require specific training to breed. TheHorse.com/37200

Intrauterine marbles repress mares’ heat cycles by simulating pregnancy. One study found that marbles can be forgotten when a mare is sold or changes veterinarians, so vets should check mares for the device prior to breeding. TheHorse.com/35305

In a natural setting, mares are designed to produce one foal. However, breeders might want a successful sport horse mare to produce multiple foals per year via embryo transfer, which requires repeated breedings over multiple cycles. Research shows mares bred and flushed for embryos many times during the breeding season over several years can experience uterine inflammation, an indication of subfertility. TheHorse.com/37200

When breeding via cooled shipped semen, mare owners need to review the stallion contract and share collection/shipping dates with their vet. Coordinating ovulation with semen availability is imperative for successful breeding. TheHorse.com/31807

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