

Horse Breeding Behavior

An understanding of the basics of reproductive behavior is important. This understanding can lead to management applications that can improve reproductive success. It is important to recognize the behaviors associated with a mare in heat, a mare that is receptive to a stallion, mating, signs of foaling, normal behavior after foaling, and libido in a stallion.

Puberty

Puberty is the attainment of sexual maturity. In fillies, this is usually at 12 to 15 months of age, but it can be as early as 9 to 10 months. Stallions are 15 months or older before they can successfully breed. Research has noted that both stallions and, to a lesser degree, fillies may exhibit sexual display before their reproductive tracts are physiologically mature. Pregnancy cannot occur until the respective reproductive tract matures at the time of puberty. Conversely, some fillies may cycle but not exhibit signs of estrus.

Estrus (Heat)

Estrus, or heat, is the period of the reproductive cycle when the mare ovulates and, if bred, is likely to conceive. Estrus is also the time when the mare is receptive and will accept the stallion. The average length of the estrous cycle, or the period from heat period to the next heat period, is 21 days, but the estrous cycle can vary from 19 to 26 days. The duration of estrus is five to seven days (actually about six days), but it can vary from two to 10 days. The first heat following foaling is referred to as foal heat. [Foal heat](#) typically occurs six to nine days after foaling, but it may be as early as five days or as late as 15 days.

Teasing

It is important to recognize the behavioral signs of estrus. Some signs are general, including restlessness, hyperactivity, less time devoted to eating and resting, and more time “running the fences.” Other signs more descriptive of estrus are frequent urination, straddling (squatting) posture, and clitoral “winking.” Mares exhibiting strong heat will actually lay against a fence or teasing partition when exposed to the teaser, a stallion used to make mares exhibit estrus. Most mares will not exhibit overt signs of estrus without the presence of a stallion.



Courtship and Mating

Horses are referred to as “long-day breeders” because they come into heat as the days increase in length in the spring. Mares are also “seasonally polyestrous,” meaning they have multiple estrous cycling throughout the spring and summer. The natural breeding season for horses in the Northern Hemisphere is the spring or summer. Light is the controlling factor in causing mares to come into heat in early spring. Most studies have

indicated a tendency toward anestrus (not cycling) in the winter months; however, some mares may cycle during this time as well.

Mares will cycle several times during the breeding season if they do not conceive and become pregnant. The most intense estrus behavior occurs when the mare is most sexually receptive to the stallion. Intense estrus behavior lasts about three days.

A mare in heat may actively seek out and attempt to stay in the vicinity of a stallion. During the peak of estrus, the mare may sniff, lick, or nuzzle the stallion. A mare in heat will also urinate frequently, particularly if a stallion is teasing her to test her receptiveness. She is also likely to raise her tail and assume a breeding stance. The classic behavioral display of the stallion when it “checks” a mare is to lift its nose into the air and curl his upper lip. This is called the Flehmen response. The stallion will often be impatient, alert, hyperactive, and restless. Vocalization is common. The stallion will frequently nudge the mare, apparently to signal readiness and to assess her “firm stance” response. In addition to nudges, some stallions may smell and bite over the mare’s body. Most behavioralists consider this display to be more important in the courtship process than odor recognition.



Dominance: Establishing Dominance



Dominance patterns are very much a part of breeding behavior, particularly in wild horses. Dominance patterns are not as easily seen on most modern stud farms, where stallions are not allowed to run in groups with bands of mares. In a natural environment, one stallion will typically dominate the breeding of a band of mares, and competing stallions will be banished to form their own separate band. At some point, one of the banished stallions will become old enough, brave

enough, or tough enough to defeat the dominant stallion. In modern breeding establishments with numerous, separately stalled breeding stallions, all the stallions are used for breeding. Dominance, nevertheless, is in evidence. Most breeding barn managers can tell you which stallion is dominant, or “the boss.”

Libido

Libido is the term used to denote sexual drive or the degree of sexual urge in animals. A stallion with a high libido will exhibit an eagerness to mount and attempt to breed a mare. In natural situations, stallions exhibit a wide range of libido levels, from zero activity to extreme aggressiveness. Some stallions will have such a strong libido that they will sacrifice all other pursuits in favor of searching for and breeding mares in heat. An extremely high or low libido may cause problems. Young stallions are more likely to exhibit a wide range of libido. Young stallions with extremely low libido are hard to breed and require patience from those handling them. Young horses with very high libido require extreme caution by the handler and those working the breeding shed.