

South Dakota State University
**Open PRAIRIE: Open Public Research Access Institutional
Repository and Information Exchange**

Extension Extra

SDSU Extension

6-1-2011

Estrus Detection in Mares

Brianna Sandager
South Dakota State University

Rebecca Bott
South Dakota State University

Follow this and additional works at: http://openprairie.sdstate.edu/extension_extra

Recommended Citation

Sandager, Brianna and Bott, Rebecca, "Estrus Detection in Mares" (2011). *Extension Extra*. Paper 100.
http://openprairie.sdstate.edu/extension_extra/100

This Other is brought to you for free and open access by the SDSU Extension at Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. It has been accepted for inclusion in Extension Extra by an authorized administrator of Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. For more information, please contact michael.biondo@sdstate.edu.



Estrus Detection in Mares

Brianna Sandager

Rebecca Bott, Extension equine specialist

In a successful horse-breeding program, it is important to understand the reproductive cycles and behaviors of a mare. The reproductive cycle of a mare is called the *estrous cycle* and lasts an average of 21 days from one ovulation to the next. *Estrus* is a period of time within the estrous cycle when the mare is receptive to being bred and typically lasts from 5 to 8 days.

The efficiency of your breeding program can be affected by your ability or inability to detect estrus in a mare. When a mare is in estrus, it is often referred to as being in “heat” or standing to be bred. Today there are a wide variety of methods used for detection of estrus in the mare. Before discussing the methods and signs of estrus, some background information about the estrous cycle must be given. Developing a thorough understanding of estrus and the estrous cycle in the mare during the breeding season is crucial for improving current breeding practices.

Horses are seasonal breeders. During late fall and winter, when the days are short, horses are not reproductively active. When the day length starts increasing, usually with the onset of spring, mares and stallions both recognize that it is breeding season. This is the time that estrous cycles will begin. Estrous cycles will usually continue through the summer months. A mare will exhibit certain signs that she either is or is not in estrus. These signs are influenced by two hormones, *estrogen* and *progesterone*. Estrogen causes the mare to exhibit strong signs of estrus, while progesterone causes a mare to lose interest in or potentially become aggressive towards a stallion.

Signs of estrus include opening and closing (“winking”) her vulva, tucking her hips (“posturing”), urinating,

raising her tail, and interest in the stallion. Additionally, a mare may become more vocal and potentially more motile as she seeks out the stallion.

Estrogen is the dominant hormone during estrus. As mentioned previously, estrus can last between 5 and 8 days. During the remaining 13 to 16 days of her estrous cycle, the mare is under the influence of progesterone instead of estrogen. This period of time is called *anestrus*. Behaviors that a mare will exhibit while under the influence of progesterone may include pinning or swishing the tail, pinned ears, walking away from the stallion, squeals, or even complete indifference. Some mares may show varying signs of aggression, including kicking, striking, or even biting towards the stallion.

Table 1. Visual Signs of a Mare Being in Estrus or in Anestrus When Being Teased.

Signs a mare is in <u>estrus</u>	Signs a mare is in <u>anestrus</u>
- opening and closing (winking) her vulva	- pinning or swishing her tail
- tucking her hips (posturing)	- pinned ears
- interest in the stallion	- walking away from the stallion
- raising her tail	- squeals
- urinating	- complete indifference
- nickering	- striking, kicking, biting towards the stallion

Correct recognition of estrus, and breeding during this time, optimizes the chance of a viable egg and sperm meeting in her reproductive tract. If you have access to a stallion, the stallion can aid you in correctly identifying estrus in your mare. The technique of using a stallion to detect estrus in a mare is called “teasing.” Like people, horses can have unique personalities. Some bold mares might exhibit more or stronger

signs of estrus, while other shy mares may exhibit less of these signs, especially in the presence of more-dominant mares. Other factors, such as caring for a foal, inexperience, weather, environment, and the time of year, may also influence the mare's reaction to being teased.

Whenever handling horses, one must always first consider safety. Therefore, when teasing a mare and stallion, safety is of utmost importance. Before deciding how a mare is to be teased, one must consider the labor required, the number of mares to be teased, and the facilities available. Regardless of which method of teasing is used, facilities must be well maintained to prevent injury to the mare, stallion, and horse handlers. Also, rearrangement of the facility may need to be made so that the stallion has a good opportunity to tease the mare.

Teasing can be done in either group or individual settings. The individual method provides a better opportunity to determine the mare's stage of estrus, without the influence of other mares. However, group teasing is much more convenient to utilize. A point to remember when teasing in a group is that you must watch all of the mares closely, as some may show signs of estrus without approaching the stallion. Viewing your mares for signs of estrus both before and after teasing may help improve your accuracy. Shy mares or mares with a foal by their side may try to hide signs of estrus in the presence of a stallion, but may show these signs while he is approaching or leaving. Five methods for detecting estrus in a mare will be discussed. Regardless of the method employed, only a trained and experienced stallion handler should tease mares.

STALL TEASING

The stall teasing method of individual teasing occurs when the mare is kept in a stall, and the stallion is brought to the barn (fig. 1). It is important to make sure the stallion has a good opportunity to tease the mare over or through the stall doors and walls, and that the record keeper has a good opportunity to see the mare's response. Alternatively, the stallion can be in a stall and have the mares brought to him. Because each mare is kept in an individual stall, the mares will not be able to cause harm to one another. You can bring the stallion to one mare at a time and spend more or less time with each mare as needed to determine if she is in estrus. While there is time spent bringing each mare to and

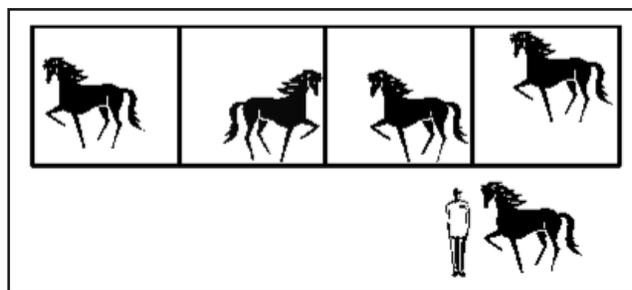


Figure 1. Stall teasing

from the stall, no person has to handle each individual mare during the teasing process.

TEASE RAIL

In a tease rail system, a mare and stallion are introduced to each other over a barrier while the mare and stallion are being handled separately (fig. 2). The barrier or physical separation, often a fence or rail, is used to protect the horses and handlers and should be approximately 4-feet tall with no areas where a hoof could get caught. This individualized method is labor intensive, as it requires handlers for both horses; however, the method can be used for all mares, including those with a foal at side.

PADDOCK FENCE

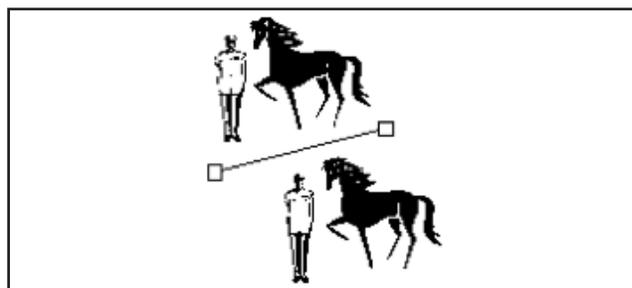


Figure 2. Tease rail

In the paddock fence method, a stallion is brought to a pen with a group of mares (fig. 3). Teasing over a paddock fence allows one to tease a number of mares at one time with minimal labor. Utilizing this method assumes that the mares in estrus will come towards the stallion. The record keeper needs to observe all mares, as more shy mares will not come to the stallion and will still display estrus signs. Sometimes the shy mares are intimidated in this type of situation. One remedy is to remove the mares that you have determined are in estrus; this will give other mares a chance to come forward to tease. Again, you must make sure there are no areas where a hoof can get caught, as there may be lots of striking from either the mares or the stallion.

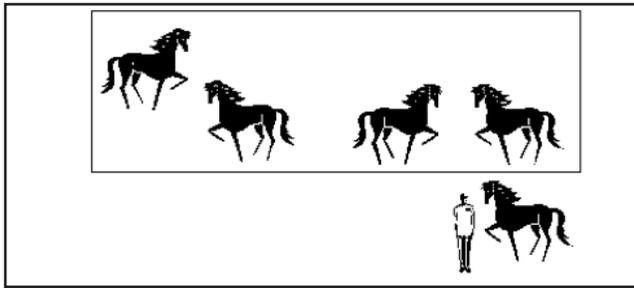


Figure 3. Paddock fence

TEASING CHUTE

In a teasing chute, mares are placed in a chute or narrow alley, then teased by the stallion (fig. 4). This group method allows one to tease a large number of mares easily. This method should not be used on mares with foals. While this option cuts down on labor, mares can get bunched together and injured if they decide to kick or strike.

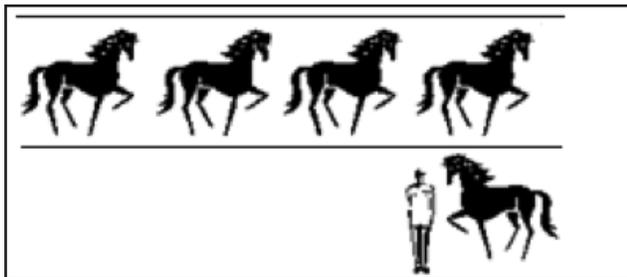


Figure 4. Teasing chute

TEASING CAGE/BOX

In the teasing cage/box group method, the stallion is put in a pen inside of a paddock, and the mares are allowed to approach the stallion (fig. 5). This is the most natural method, as there is the least amount of human interference. Again, all mares must be observed for estrus, as timid mares won't necessarily tease if suppressed by a dominant mare. Some mares that do not approach the stallion may need to be caught and led to the stallion for teasing. Again, mares that show signs of estrus may be removed to allow other mares to tease.

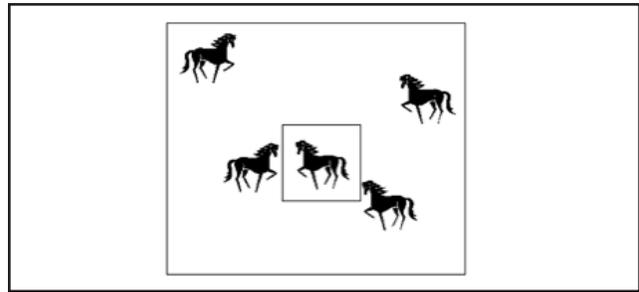


Figure 5. Teasing cage/box

SUMMARY

The design of the facilities, labor and time availability, experience of handlers, number of mares, number of mares with foals, and temperament of mares and stallions are all factors that must be considered before making a final decision on which method of teasing to use. Safety is of utmost importance in any design. It may be useful to test out several methods to determine which works best. Keeping good records will help you to identify patterns and/or variations in estrus behaviors. The time and effort you spend on estrus detection will help you to ensure a successful breeding season.

REFERENCE

AAEP. 2008. Vaccination Guidelines. http://www.aaep.org/vaccination_guidelines.htm.



South Dakota
Cooperative Extension Service

South Dakota State University, South Dakota counties, and U.S. Department of Agriculture cooperating. South Dakota State University is an Affirmative Action/Equal Opportunity Employer and offers all benefits, services, education, and employment opportunities without regard for race, color, creed, religion, national origin, ancestry, citizenship, age, gender, sexual orientation, disability, or Vietnam Era veteran status.

EXEX2077 Access at http://pubstorage.sdstate.edu/AgBio_Publications/articles/ExEx2077.pdf