



FAILURE TO CYCLE

Patrick M. McCue

DVM, PhD, Diplomate American College of Theriogenologists

Mares are seasonal breeders and if housed under natural light conditions typically begin to cycle in April or May. Housing mares under an artificial photoperiod regimen beginning in early December will significantly advance the first ovulation of the year. Most mares housed under lights will come into heat and ovulate in early to mid-February.

Once a mare ovulates for the first time in a given breeding season, she should come into heat at regular intervals. Mares are typically in heat for 4 to 7 days and out of heat for 14 to 15 days. The interval between ovulations is usually 20 to 22 days.

Some mares fail to come into heat at the predicted time period. Failure to show heat and/or failure to develop follicles and ovulate can be an important problem in individual mares. 'Silent heats', in which mares develop follicles and ovulate without showing behavioral estrus are most common in mares with a foal at side and in maiden mares. Mares that fail to come into heat during a 3-week period should be examined by a veterinarian to determine if they have normal ovarian function and just not expressing heat or if they are not developing follicles at all. Pregnancy is an often overlooked cause of failure to return to estrus. It is interesting to note that almost every year we are presented with a mare to

examine for breeding that is already pregnant, and usually the owner is unaware that the mare had been bred. However, it is a reasonable assumption that someone on the farm knew that an unplanned mating occurred.

Other causes of failure to show heat or failure to cycle include season (i.e. winter anestrus), inadequate nutrition or poor body condition, and advanced age. Older mares and mares in poor body condition are more prone to begin to cycle later in the spring than younger mares or mares on a good plane of nutrition. In addition, older mares can exhibit erratic heat cycles and not necessarily ovulate at predictable 3-week intervals.

A majority of mares that foal will return to estrus within a week and ovulate within 14 days of giving birth. The average interval from foaling to the 'foal heat' ovulation is 10 days. Most foaling mares will have a foal heat ovulation and will continue to cycle if they do not become pregnant at a foal heat breeding. In some mares, a foal heat ovulation may be followed by a variable period of anestrus before the mare cycles again. A few mares fail to cycle at all for several weeks or months after giving birth. In most instances, failure to cycle after foaling is due to a combination of season (i.e. mares that foal in January,

February or March), inadequate nutrition, and lactation.

Another potential cause of failure to cycle in a mare is called pseudopregnancy or persistence of the corpus luteum. Mares with this condition had an initial ovulation and formed a normal corpus luteum. However, the mare failed to regress the corpus luteum at the standard time, which is 13 to 15 days after ovulation. As a consequence, the corpus luteum in the affected mare continued to produce the hormone progesterone, which will keep her from coming back into heat. Pseudopregnancy is a relatively common condition in mares and is treatable with administration of a single dose of prostaglandins. Untreated mares may remain out of heat and will not cycle for up to 2 to 3 months.

Other, less common causes of failure to cycle include Equine Cushing's Disease, chromosomal abnormalities, and administration of certain hormones. On rare occasions, mares have even been presented for breeding soundness examinations that are missing one or both ovaries.

Diagnosis of the cause for a mare to fail to come into heat can be obtained in most clinical cases by performing a few basic reproductive tests, the most important of which would be an ultrasound examination. In a few cases, a more comprehensive examination may be required. Please consult with your equine veterinarian for more information.



Photos of a mare teasing out