

So Your Mare Isn't Pregnant

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If the end of the breeding season finds you disappointed and frustrated because your mare isn't pregnant, don't despair. Let the advantage of hindsight and the opportunity for advance planning for next season aid your future success. When troubleshooting why your mare did not get pregnant, all aspects of the mare's management should be considered, including nutrition, overall health and disease status, stress management, reproductive history and techniques used for estrus detection and breeding. Although multiple factors can affect fertility, good breeding management is clearly the most important influencing factor and a good place to begin.

A full reproductive examination, sometimes called a breeding soundness evaluation (BSE), is important in determining a mare's potential for becoming pregnant in the first place and should have been done at the beginning of the season. A complete reproductive exam includes:

1. Rectal palpation of the reproductive tract to detect abnormalities in structure or tone.
2. An ultrasound of the reproductive tract to visualize abnormalities, such as uterine fluid and cysts, undetectable by palpation.
3. An evaluation of perineal conformation. Poor perineal conformation can lead to the introduction of air and contaminates into the reproductive tract, which can often be alleviated with a Caslick procedure.
4. A uterine culture and cytology to detect and identify bacteria and inflammatory cells that indicate a uterine infection.
5. A uterine biopsy to determine the health of the endometrial cells and glands. Biopsy results are typically reported from best to worse as Grade I, IIA, IIB, or III.

It may be time to re-visit this exam to detect and/or treat problems that may have arisen during the season and could hinder her future fertility. Evaluations, such as cultures and biopsies, may need to be repeated.

Ultrasound is one of the most valuable tools available to veterinarians. One of the major causes of mare subfertility is estrus cycle irregularity, which can be detected and managed using ultrasound. Mares who exhibit silent heat (in heat but never tease) or anovulatory cycles can be very tricky to get in foal without the use of ultrasound. Ultrasound is also invaluable for post-breeding management, such as post-breeding fluid accumulation, CL evaluation, detection of early pregnancy and twins pregnancies. Ultrasound can help the veterinarian evaluate the CL (corpus luteum), the source of necessary progesterone for early pregnancy maintenance. The CL should appear uniform and dense using ultrasound. Blood progesterone levels can also easily be tested throughout pregnancy and mares can be supplemented with oral progesterone if necessary.

Post-breeding fluid is common in older mares with less uterine elasticity and contractile ability. The embryo enters the uterus 6 days after ovulation and the uterine environment must be ideal for continued survival of the embryo, thus early detection and elimination of fluid is important. Unidentified or improperly treated uterine infections are common in mares that have a problem becoming pregnant. It is also important that your mare's uterus is free of infection before she enters deep winter anestrus, when there are no uterine contractions to facilitate uterine clearance. "Put her away clean", I always say.

Another technology that has become invaluable to some owners with problem mares is embryo transfer. Mares who conceive but have trouble carrying a pregnancy to term are prime candidates for embryo transfer. Mare owners who want multiple pregnancies from one mare, want to compete with their mare year round, or want to remove their valuable mare from the risks associated with pregnancy and foaling also take advantage of embryo transfer.

When making decisions about a mare's reproductive future, all aspects of the mare should be considered. Although insufficient breeding management is the most common cause for infertility, other factors, such as past use of anabolic steroids, extreme weight problems, hypothyroidism, granulosa cell tumors, pituitary gland tumors, and hormonal insufficiency can affect fertility and should be ruled out. It's also important to consider your mare's reproductive history. Different strategies may be taken for mares that have been barren for only one year versus older mares who have been barren for several years.

If your mare is not pregnant this year, put aside your disappointment and while it's fresh in your mind review the events of this breeding season and make a plan for the upcoming season. Obtaining and maintaining pregnancy in a problem mare requires the commitment and teamwork of the veterinarian and mare owner and the strict use of scientifically proven breeding management practices.