

## PALPATING BARREN & MAIDEN MARES BEFORE BREEDING SEASON

With the timing of each mare's oestrous cycle better understood through behavioural indicators from teasing, the Broodmare Manager moves forward with internal examination of the mare via palpation and ultrasound.

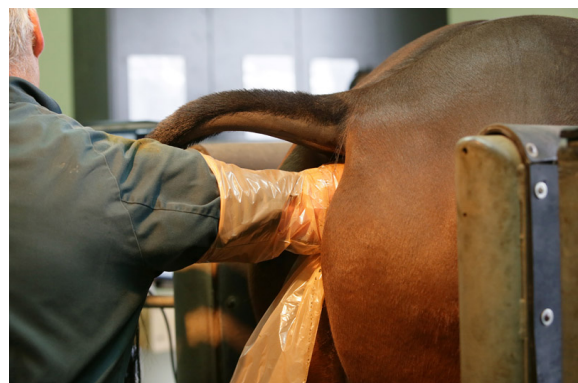
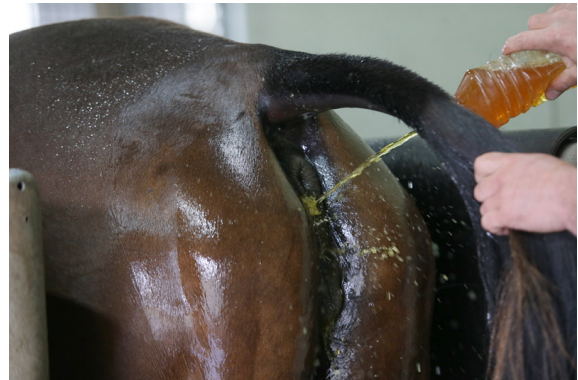
Palpation is a procedure performed by a veterinarian who reaches into the mare's rectum to feel the reproductive organs through the recto-vaginal wall. This is to inspect size and consistency of both ovary and follicles, uterine tone, the degree of cervical relaxation and pelvic structure.

With coverings set to take place from September 1 annually, mares that are not currently in foal (dry mares) can visit the stallion early in the season as soon as they are ready to be bred. The veterinary examinations allow the Broodmare Manager to effectively communicate the likely day of ovulation, with two to three days' advance notice. Close monitoring and communication will ensure that the mare is covered when she has the greatest possible chance of conception.

A veterinarian uses palpation and ultrasound during different periods of the oestrous cycle, both when the mare is in heat (estrus) and also

in the time period between heats (diestrus). The same organs are always inspected but there are major differences to be found. There is also a lot to learn about individual maiden mares, as it is the first time they have gone through this process.

To prepare a mare for palpation, she is placed in the veterinary crush (also known as stalls or stocks). There is one handler at the mare's



head and another at her hindquarters. The handler at the hind end is responsible for holding the tail aside to create a clear path to the rectum for the vet.

The vet will begin palpation by putting on a disposable shoulder-length glove and applying a lubricant. The vet then reaches through the rectum, removing any faeces that may be present. Once the rectal path is clear, the vet

proceeds with inspecting the ovaries, follicles, uterine tone, cervix and pelvis by feeling through the rectal wall. The grade of each, in terms of size, consistency, relaxation and structure, is then reported and noted.

When a mare is in estrus the palpation exam will show that her ovaries have become larger and softer due to the development of follicles. These are fluid-filled vesicles that contain a developing egg.

In the past, palpation was the only available method of examination method. However, with the introduction of ultrasound technology, veterinarians are able to not only feel but also see. The rectal ultrasound examination follows rectal palpation, allowing the vet to confirm the palpation exam. A small ultrasound wand is held in the vet's hand within the rectum and the image transmitted to a small monitor. The vet can thus accurately measure the size of ovaries and follicles and determine the presence of uterine edema, fluid and cysts.

The presence of any fluid in the uterus, typical to some degree during ovulation, is recorded.

Cervical relaxation is graded from one to four. A 'one' cervix is tight and firmly closed; a 'four' cervix is open and relaxed. During ovulation, the open cervix provides a pathway for the sperm to reach the follicle. When a mare is not ovulating, or is pregnant, the cervix will be closed.

During palpation the veterinarian will determine if the cervix is relaxed enough to be examined with a speculum (a very long, thin tube). As the speculum must be used via vaginal exam, the tail is wrapped and the outer part of the vagina cleaned using an iodine and soap mixture. It is important to keep the vaginal area clean so that no dirt or debris, which could cause infection, enters.



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The vet passes a culture swab, via the speculum, through the cervix and into the uterus. This swab will collect a sample from the mucosal lining of the uterus. Once the swab has been carefully removed and placed in a tube of culture media, it can be taken to a laboratory and set up for culture, which will identify any growth of bacteria. A sample with no bacterial growth is known as a 'Clean Culture' and a certificate stating such must be provided when the mare visits the breeding shed. If bacterial growth is identified the mare will be treated appropriately and re-examined until the infection has abated.



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