

- SOP No:** ATT 08
- SUBJECT:** Pregnancy Diagnosis by Rectal Palpation in Cattle
- POLICY:** This procedure may only be performed by, or under the supervision of, operators skilled in the technique
- PRECAUTIONS:** Pregnancy diagnosis of cows is a physically demanding job. Palpators should be aware of the risk of acute, traumatic injury, as well as injuries resulting from repetitive strain if poor technique is used over a period of time. Proper restraining facilities limiting animal movement are required to ensure operator's safety and speediness of the procedure
- EQUIPMENT:** Palpation Gloves  
Lubricant
- PROCEDURE:** Rectal palpation of the reproductive tract has been the standard method of bovine pregnancy diagnosis for almost 60 years.
1. **Entry:** before entry it is important that the gloved hand and arm are well lubricated as this will reduce the force needed for penetration. The hand enters the rectum to approximately wrist level, and then the operator pulls the cow's tail towards the chest with the non palpating hand so the palpating arm is able to penetrate to a sufficient depth. The amount of faeces in the rectum is assessed and if deemed excessive are gently scooped out by withdrawing the arm to the anus level without exiting the rectum completely.
  2. **Examination:** location of the cervix should be the first step in every palpation of the bovine genital tract. Careful palpation along the floor of the bony pelvis in the midline should reveal the cervix, which is a hard, slightly irregular structure and is a continuation of the vagina. In heifers the cervix is 2-3 cm in diameter and 5-6 cm in length. In pluriparous, non-pregnant cows, it is slightly larger and may rest on or over the pelvic brim. In the non-pregnant or early pregnant animal, the cervix is mobile and can be grasped through the rectal wall and moved from side to side within the pelvic cavity. The cervix increases in size as result of pregnancy. If the cervix is found to be freely moveable, complete retraction of the genital tract should be attempted. If the cervix is not freely moveable or heavy, then the uterus and contents are palpated *in situ*.
    - a. **Retraction of uterus:** the aim of retraction is to free the uterine horns from their position under the broad ligament to a position above the broad ligament where they can be easily and completely palpated. Failure to retract the uterus will often mean that it is not possible to palpate the distal portion of the horns. This can result in early pregnancies not being identified. There are two

methods of retracting the uterus, indirect and direct, with the indirect method being preferred method. After the cervix has been located and found to be freely moveable, it is pulled as far caudally as possible. The anterior portion of the cervix is grasped and the internal os of the cervix is directed dorsally as the cervix is pulled caudally. This helps to release the uterine horns from under the broad ligament. For the right handed palpator, the thumb is then placed beneath the cervix or the body of the uterus from the right side to push it laterally into the left wall of the pelvis. The hand is then opened out to the right hand side, lowering the bent fingertips to hook underneath the broad ligament. The broad ligament is then grasped in the angle between the ovarian end of the uterine horn and the ovary. It is then drawn dorsally and caudally. The bent fingers are then moved medially under the uterine horn, gently rolling it out from under the broad ligament. Continuing medially, the fingers work towards the bifurcation of the uterus, and the ventral intercornual ligament is firmly grasped. Applying gentle but steady caudal traction on the ventral intercornual ligament completes the retraction of the uterus. Once retraction is accomplished, both uterine horns can be thoroughly assessed to determine pregnancy status.

3. **Withdrawal:** the operator releases the tail and withdraws the arm from the animal. It is important to check the glove for presence of blood traces indicating trauma caused by the procedure.

**RECOMMENDATIONS:**

The procedure should be carried out as promptly as possible to avoid unnecessary stress of the animal. If the operator is struggling to find the structures is better to give the cow a break and try again later.

**DATE ISSUED:**

24.06.2009

**REVISED:**

**REFERENCES**

1. **Pregnancy Diagnosis in Cattle, 2004.** Edited by S. Jephcott and S. Norman. Published by the Australian Association of Cattle Veterinarians.