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iASK

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A SOLUTION FOR IMPROVING CARABAO'S REPRODUCTIVE EFFICIENCY

Flushing the uterus with iodine solution helps improve the reproductive efficiency of carabao. This technique facilitates faster uterine “involution” (a process whereby the uterus returns to its normal pre-pregnant state) and treats postbreeding endometritis or inflammation of the lining of uterus.

Enhancing the reproductive performance of carabaos through artificial insemination (AI) is one of the challenges in breeding management to achieve 14 months of calving interval for dairy buffaloes.

A calving interval of 15-16 months is achievable with the following stages: 10.5 months of gestation period, two months of uterine involution and three months of natural breeding for impregnation.

Fourteen months of calving interval, meanwhile, is achievable through AI with two months of uterine involution and three months of natural breeding with impregnation being shortened to 45 days and 60 days, respectively.

Solution

Uterine flushing (washing of uterus) technology shortens uterine involution process, which results in early estrus (heat period) of carabaos and breeding after calving. Early impregnation of carabaos at 42 days after calving increases AI efficiency and shortens calving interval.

The carabao uterus is flushed with povidone-iodine within 48 hours after calving to protect it from infection and postbreeding endometritis. It helps maintain good fertility and reproduction performance of carabaos.

What are the needed materials?

- 10% Povidone-Iodine Solution (iodine antiseptic available in drug stores)
- 60-mL syringe
- A.I. straw sheath

Procedure

Within 48 hours after calving:

1. Mix 400 ml of 10 percent povidone-iodine solution with 600 ml water. This mixture will produce 4 percent solution for uterine flushing.
2. Clean the vulva or outer part of the genitals of the female carabao properly using water and soap.

3. Allocate 120 ml of four percent povidone-iodine solution for each carabao using a 60 ml syringe.

4. Get iodine solution from its container using the 60 ml syringe.

5. Insert the straw sheath directly to the uterus of the animal while being guided by rectal palpation.



6. Attach the 60 ml syringe at the end of the AI straw sheath and inject the povidone-iodine solution.

7. Remove the syringe and leave the AI straw sheath in the carabao's vagina; draw another 60 ml of four percent povidone-iodine solution into the syringe.

8. Pull out the AI straw sheath completely, clean it, and dispose of it properly.



Result

Animals treated with four percent povidone-iodine solution showed better condition especially on the delicate part of its body. Meanwhile, after just 29 days, the uterus of the animal has gone back to its normal condition while 33 days is the earliest time for the onset of estrus. This proves that the AI service, which was provided to carabao, resulted in 75 percent success rate.

Lessons Learned

Uterine flushing technology:

- cleans the uterus of the carabao
- improves and provides faster recovery of the animal's uterus
- shortens uterine involution process and calving interval

Keywords: *artificial insemination, reproduction performance, povidone-iodine solution*



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ABOUT THE MATERIAL

iASK, an acronym for innovative answers, solutions, and knowledge, is a knowledge product series packaged and produced by the Philippine Carabao Center with the Southeast Asian Regional Center for Graduate Study and Research in Agriculture. This iASK issue aims to specifically help dairy farmers improve the reproduction performance of their buffaloes.

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