



OVUPLANT™: Should It Be Part of Your Breeding Program?

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Ovuplant™ is the trade name for the drug deslorelin acetate, which is a potent, synthetic form of gonadotropin releasing hormone or GnRH. The drug is administered as a subcutaneous implant. Ovuplant™ was approved for use in the United States for the induction of ovulation in mares in 1998. The drug is very effective in inducing ovulation when administered to mares in estrus that have a follicle larger than 35 mm in diameter. Approximately 85 to 95 percent of mares will ovulate within 48 hours after treatment. The average interval from treatment to ovulation is 42 hours. Ovuplant™ is used as an alternative to human chorionic gonadotropin (hCG) for induction of ovulation. Administration of multiple or repeated doses of hCG to a mare during a breeding season may result in a decrease in effectiveness.

The most common use of Ovuplant™ in a breeding program is the induction of a timed ovulation, such as when mares are being bred with cooled-transported semen or frozen semen. For example, in a shipped semen program, Ovuplant™ may be administered to a mare in the morning after a semen shipment is ordered. Semen shipped by overnight courier would arrive the following morning and the mare would be inseminated. The mare would ovulate later that evening and the interval from insemination to ovulation would be less than 24 hours.

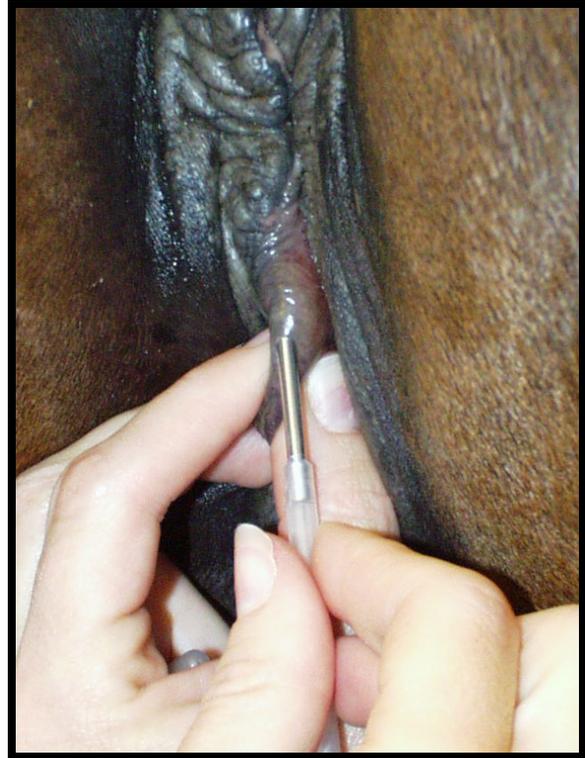
Induction of ovulation with Ovuplant™ may also be advantageous in certain older mares that are prone to prolonged periods of uterine inflammation after they are bred. Inseminating these mares only one time may limit the degree of post-breeding inflammation, decrease the amount of medical treatments required to clean up the uterus after breeding and possibly enhance pregnancy rates.

After Ovuplant™ was used extensively during the 1999 and 2000 breeding seasons, several reports suggested that the interovulatory interval may be prolonged in some individual mares treated to induce ovulation that did not become pregnant. Clinical studies subsequently confirmed these early reports. The cause of the prolonged interovulatory intervals was determined to be a temporary suppression of pituitary function in treated mares. It was also determined that mares in embryo transfer programs that received prostaglandins after an embryo recovery attempt 7 to 8 days after an ovulation induced by Ovuplant™ were most prone to the prolonged interovulatory intervals.

Subsequent studies have indicated that removal of the Ovuplant™ implant approximately 48 hours after administration prevents the suppression of pituitary

function and the adverse effect on follicle development. In order to facilitate easy administration and subsequent removal, it is currently recommended that the Ovuplant™ implant be administered just beneath the skin of the vulva following infusion of a local anesthetic. The implant can be removed 48 hours later after ovulation has occurred by gently squeezing the implant out through the original insertion site.

In summary, Ovuplant™ is a valuable breeding management tool and may be used as an alternative to other medications such as human chorionic gonadotropin (hCG). When used appropriately, Ovuplant™ can induce a consistent timed ovulation. However, removal of the implant after ovulation is detected is recommended. Consult with your veterinarian about the use of either hCG or Ovuplant™ in your breeding program.



Administration of the Ovuplant™ implant under the skin of the vulva



Infusion of local anesthetic in the vulva



Removal of the implant after ovulation