



Po Box 741

Cedar Ridge, CA 95924

530-273-9123 phone 530-273-9128 Fax

[info@icsbgrassvalley.com](mailto:info@icsbgrassvalley.com) [www.icsbgrassvalley.com](http://www.icsbgrassvalley.com)

## **ESTROUS TIMING FOR ARTIFICIAL INSEMINATION**

The procedure we use for timing the bitch for artificial insemination relies on serum progesterone. If the bitch shows the average length of estrus and is proven, we normally wait until the 7th or 8th day of estrus (day one being the first appearance of red vaginal discharge) to start the progesterone testing. If the bitch's progesterone is still at baseline (less than 1.8 ng), we skip a day to do the next blood draw. Once the bitch rises to 2.0 ng, daily serum progesterone is run until the level rises to 5.0 ng. The most accurate test for progesterone is the numerical level report. We do not recommend the in-house color tests, because the interpretation of results may not be very accurate. When the bitch's progesterone rises to over 5.0 nanograms, we plan the breeding(s) as follows:

If vaginal inseminations are used, usually two AI's are performed. The first AI we do two days' following the point when the progesterone is at 5.0 ng, then the second AI four days' following the point where the level is at 5.0 ng.

If surgical insemination is used, the AI is done 72 hours, or on the third day, following the rise to 5.0 ng. Make sure to confirm ovulation, testing past 5.0ng to see the rise indicating ovulation.

(If the progesterone is above 5.0 ng when the first test is performed, the breeding should be done when the bitch is at 15 nanograms, plus or minus 3-4 ng. If you miss the window at 5.0 nanograms, then you would hope to catch her at between 9 and 12 nanograms the day prior to breeding. The progesterone level should be within the prime breeding time.)

## **SURGICAL INSEMINATION**

The following protocol is used by ICSB associated veterinarians. The veterinarians with whom we work usually start with a preanesthetic, followed by gas anesthesia during the surgical phase of this procedure. Once the bitch is anesthetized, the general procedure used is as follows:

After sterilizing the abdominal area, a midline incision is made just below the umbilicus; the uterus is located and brought to the surface. The insemination is performed using a 2 inch, 22 gauge indwelling catheter. Usually, 2.0 ml of thawed semen is injected, using one of the two following procedures:

Just anterior to the bifurcation of the uterine horns, the catheter is inserted into each horn, discharging one half of the semen. Once the catheter is in place, the trocar is removed. Move the cannula back and forth to be sure the cannula is in the lumen of the horn. If it won't slide easily, then it may be not be in the lumen. Another approach is to insert the catheter into the body of the uterus close to the bifurcation and inject all the semen at this one site. The posterior portion of the uterine body should be gently constricted so the semen will be forced anteriorly toward the oviducts. Once the semen is discharged into either the uterus or uterine horns, the catheter is removed. Any bleeding can usually be stopped by gentle pressure at the catheter insertion site. Antibiotic solution can be sprayed on the uterus and around the incision, if desired. The uterus is then placed back in the abdominal cavity, then normal closure performed.

***Occasionally, due to the high hormone levels in the bitch at the time of surgery, this will result in slow blood clotting/healing, so it is recommended that the bitch owner be apprised of the possibility of a serous discharge at the incision site may require further veterinary care.***