

DONOR & RECIPIENT STIMULATION INSTRUCTIONS

The following are instructions on how to prepare and administer the products used for synchronization and hormonal stimulation of donors and recipients for an EMBRYO TRANSFER program. For full details on the amounts to be injected, please consult daily the STIMULATION SCHEDULE that we provided.

1. **CIDR:** The acronym stands for “Controlled Intravaginal Drug Release” and is basically a silicon device impregnated with progesterone and will release this hormone in a controlled (slow) way for several days. It acts like an artificial corpus luteum and the effect is that, when removed after 14-16 days, all does will start a new cycle and come into heat at the same time. The following are the instructions on how to insert and remove CIDRs in does:

Insertion of CIDR:

- a) Avoid contact with skin by wearing protective gloves when handling CIDRs.
- b) Only use the EAZI-BREED CIDR Applicator specially designed for sheep/goat/deer.
- c) Restrain does appropriately prior to administration (e.g. chute).
- d) Wash the applicator in a non-irritating antiseptic solution, and then apply a veterinary obstetrical lubricant to the end of the applicator.
- e) Load the CIDR into the applicator, tail first
- f) Fold the wings of the CIDR to make it fit inside the applicator until it is fully seated with only the tips of the wings protruding from the end of the applicator (see Figure 1).
- g) Lubricate the protruding tips of the applicator and CIDR with veterinary obstetrical lubricant.
- h) Clean the exterior of the vulva with disposable tissue. If feces are present clean first with abundant disinfectant solution, then dry with paper towel.
- i) Open the lips of the vulva and gently place the loaded applicator through the vulva. The slot in the applicator should face down (see Figure 2).
- j) Once the loaded applicator is past the vulva slope the applicator slightly upwards (35 - 45° angle) and then forward, without forcing, until the applicator is fully inserted in the vagina (see Figure 3).
- k) Squeeze the finger grips within the handle of the applicator to release the CIDR in the vagina (see Figure 4) and then pull the applicator backwards to remove it from the vagina.
- l) With the CIDR correctly placed, the wings open securing the CIDR inside the vagina, and the tail of the insert should be visible, pointing downward from the vulva of the doe.

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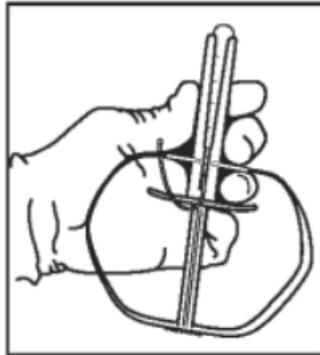


Figure 1



Figure 2

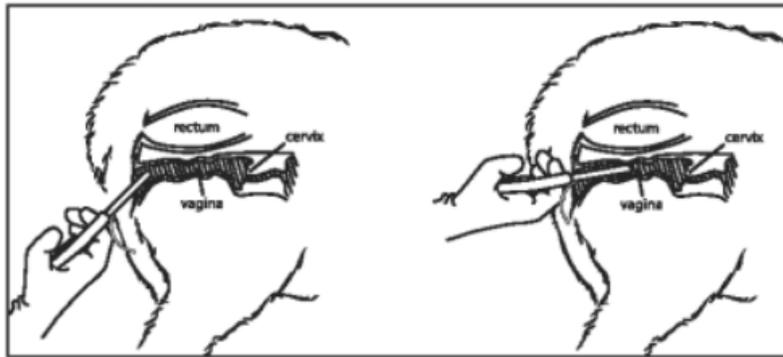


Figure 3



Figure 4

Removal of CIDR:

To remove the CIDR simply pull from the protruding tail, gently but firmly. Sometime the tail may move inside and become not visible. Check for the tail inside the vagina with gloved finger before assuming the CIDR was lost. Some foul smelling/looking discharge may come out at removal, this is perfectly normal.

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2. **FOLLTROPIN®**: This is the commercial name of a hormone known as Follicle Stimulating Hormone (FSH). This hormone is given to embryo donors to promote that all the follicles available are capable of full development and ovulation on the cycle that will be used for flushing (please read out Tech-Share for more details). Folltropin needs to be injected multiple times (every 12h, total of 8 times) following the treatment schedule provided. It comes in a box with 2 bottles in it, one has a powder which is the hormone itself and the other has a liquid which is the solvent we are going to use to reconstitute the hormone and make it ready for injection, following these instructions:

- Open the box and remove the 2 bottles
- Using a 20 mL syringe and 18-20G needle, remove all the liquid from the solvent bottle and inject it into the powder bottle. As you inject the solvent, suck air from the bottle into the syringe to avoid pressure build-up inside bottle.
- Homogenize gently (avoid excessive foaming) and make sure all the powder is dissolved
- For injecting animals, load the designated dose into 3 mL syringes and inject intramuscularly.
- Any leftover hormone must be kept in the refrigerator until next shift of injections.
- Any leftover hormone after all injections for the program have been completed (i.e. last injections of all donors in the program) can be frozen for future use (good for up to one year) but once frozen and thawed it cannot be refrozen.

3. **Recombinant FSH**: This is an experimental drug that allows superovulation with a single injection. The recombinant FSH comes in a powder inside a small vial and need to be reconstituted by adding 1.5 mL of solvent into the vial (the solvent will be provided separately, but can be saline solution of water for injection. After injecting the solvent into the vial with the powder, homogenize by gentle agitation to avoid the formation of foam, then load into the syringe and inject the animal.

4. **FOLLIGON®**: This is one of the commercial names for a hormone known as Pregnant Mare Serum Gonadotropin (PMSG), which is also known as eCG (equine chorionic gonadotropin). This hormone is used for estrus synchronization/stimulation of recipients in embryo transfer programs and of breeding does for insemination programs. The presentation of Folligon is a bit annoying as it comes in a small vial with the powdered hormone and a large (25 mL) bottle with diluent. Here is how you should reconstitute the product prior to use:

- Open the box and remove the 2 bottles
- Using a 5 mL syringe and 18-20G needle, remove 2 mL of liquid from the solvent bottle and inject it into the powder bottle. As you inject the solvent, suck air from the little bottle into the syringe to avoid pressure build-up inside bottle.
- Homogenize gently (avoid excessive foaming) and make sure all the powder is dissolved
- Remove all 2 mL from the little bottle and inject them back into the big bottle of 25 mL solvent.
- Repeat the above procedure 2 times to ensure transfer of all the hormone in the small bottle.

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- Using a marker, write “ready” on the big bottle. The big bottle is now ready to inject.
- Any leftover hormone after completing the injections can be kept in the fridge for up to 1 week, or, can be frozen for future use (good for one year). However, once frozen and thawed it cannot be refrozen.
- Check the following video for more:
<https://www.youtube.com/watch?v=B1fo8FITngA&feature=youtu.be>

5. **NOVORMON®**: This is another commercial name for Pregnant Mare Serum Gonadotropin (PMSG), which is also known as eCG (equine chorionic gonadotropin). This hormone is used for estrus synchronization/stimulation of recipients in embryo transfer programs and of breeding does for insemination programs. The presentation of Novormon® is much friendlier as it comes in 2 x 25mL bottles, one with the powdered hormone and one with diluent. Here is how you should reconstitute the product prior to use:

- Open the box and remove the 2 bottles
- Using a 30 mL syringe and 18-20G needle, remove the 25mL of liquid from the solvent bottle and inject it into the powder bottle. As you inject the solvent, suck air from the little bottle into the syringe to avoid pressure build-up inside bottle.
- Homogenize gently (avoid excessive foaming) and make sure all the powder is dissolved
- Using a marker, write “ready” on the hormone bottle.
- The bottle is now ready to inject.
- Any leftover hormone after completing the injections can be kept in the fridge for up to 1 week, or, can be frozen for future use (good for one year). However, once frozen and thawed it cannot be refrozen.

Animal Reproductive Solutions