Processing bull semen for shipping in cooled liquid form prior to cryopreservation April 2015

Box Contents (to arrive days prior to collection):

- One large styrofoam cooler
- One small styrofoam cooler
- Reusable ice packs **to be placed in freezer**
- Bull semen cryopreservation media **to be placed in freezer**
- 15ml or 50 ml tubes
- Bubble wrap
- UPS shipping labels
- Note for blood collections (if applicable) blood tubes, needles and Ziploc bags as a secondary container for the blood samples.

Prior to collection

1. Thaw the media in a 37°C water bath
2. Place small cooler to one side of large cooler and pack large cooler with ice packs

Collection Process

1. Collect semen from sexually mature bulls via an artificial vagina or electroejaculation.
2. Check sample to make sure it is free of urine and other contaminants.
3. Determine the sample volume and sperm concentration.
4. Multiplying the two (volume x count) will give the sperm count.
5. Divide the sperm count by 120 x 10^6 sperm/mL which will determine the final volume that the sample should be diluted to.
6. The final volume minus the sample volume will determine the amount of the 37°C cryopreservation media to add to the sample.

Here is an example of the dilution math:

Sample volume:	4.5 mL
Sperm concentration:	300 x 10^6 sperm/mL
Sperm count (volume x concentration):	1350 x 10^6 sperm/mL
Final diluted volume (count ÷ 120 x 10^6 sperm/mL):	11.25 mL
Amount of cryopreservation media to add (Final volume less sample volume):	6.75 mL

After dilution of the sample with the 37°C cryopreservation media, label the tube with the bull's name and/or identification number and place the sealed tube in the inner styrofoam box. After collection and dilution of all semen samples also place the blood samples, which are contained within a ziplock bag, in

the inner styrofoam box with the diluted semen samples. The excess supplies (tubes, clean needles, etc.) are then placed in the box next to the ice packs, the box is sealed, and the UPS label is affixed to the outside.