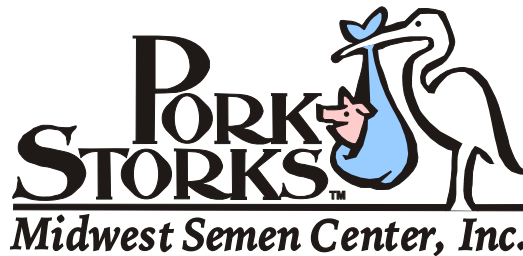


PORK STORKS I
Sleepy Eye, Minnesota
Phone: (507) 794-5147
Fax: (507) 794-5177



PORK STORKS II
Rushmore, Minnesota
Phone: (507) 394-2322
Fax: (507) 394-2335

Motility Checking MR-A Extended Semen

- A. Background
 - 1. Long term extenders slow the activity and metabolism of the sperm cells, which lengthens sperm life
 - 2. Long term extenders also delay the acrosome reaction in sperm
 - a. Acrosomes are the portion of the sperm cell that contains the enzymes needed to break down the outer surface of the egg and allow the sperm to enter and fertilize it
 - b. As the sperm get close to the egg, the acrosome reacts to create an entry for the sperm into the egg
 - c. If the acrosome reacts too soon or is damaged, the enzymes are not available when the sperm meets the egg and therefore can not penetrate the egg
- B. Short Term Extenders
 - 1. Short term extenders such as BTS don't slow the metabolism
 - 2. Therefore sperm extended in short term extenders will appear extremely active as compared with sperm extended in long term extenders
 - 3. That's why they will only preserve sperm for 1-2 days as compared with 4-5 days
- C. Long Term Extenders
 - 1. The 3 most commonly used extenders in the United States are Androhep, X-Cell and MR-A
 - 2. There is only one difference between these. It doesn't affect performance but does make the sperm look different under the microscope
 - 3. X-Cell and Androhep contain BSA (bovine serum albumin) which is a slippery substance
 - 4. MR-A is somewhat sticky because it doesn't have the BSA. This stickiness will tend to make the sperm stick to the glass of the slide
- D. Checking Motility In MR-A extended semen
 - 1. Because of the stickyness of MR-A it is important to look at the sperm within 15 to 30 seconds after placing sample on the slide
 - 2. If you look at it after this time, the sperm will begin to stick to the glass and give a false reading of motility
 - 3. Since the female tract isn't made of glass, the MR-A will give similar performance to other long term extenders
 - 4. When viewed properly looking at the semen with in the 15-30 seconds, the motility looks livelier than with X-Cell or Androhep. This is due to the composition of MR-A
- E. Recommended Procedure To Check Motility for MR-A Extended Semen
 - 1. Allow sample to warm up at room temperature for 10-15 minutes
 - 2. Have slides and cover slips on a heated stage or slide warmer. A warm gel pack put in a microwave can substitute for a slide warmer
 - 3. Place a small drop of semen on the slide and cover with a cover slip
 - 4. Focus microscope using 40X power. It is helpful if microscope focus has been set prior to checking the sample
 - 5. Look at the sample withing 15-30 seconds after placement of the drop. Do not continue to observe the sample beyond this time frame to avoid misreading the sample