**Artificial Vagina:**

 Inside Temperature – 42-45 C

 Fill with water 50-55 C to get correct end temperature

 Collecting Tube Temp – 30-37 C

 Warm Bath for tube - 30-34 C

**Examination of Semen:**

\*All glassware for collection and handling of semen should be clean, dry, warm, and sterile.

Look for the following:

 Volume- varies from 0.3 -2mL, **average 1mL**

 Density and Color- Concentration=number of spermatozoa per ml

 Ram Semen- white to pale cream

 Buck Semen- White to yellow

 Presence of blood- Pink Color

 Contamination or infection- Grey or Brown

 Wave Motion and Motility: Scored on a system of 1-5

5 - Very Good - Dense very rapidly moving waves, 90% or more of the

Spermatozoa are active

4 - Good Vigorous wave movement but not as rapid as for score 5

 70-85% of sperm cells are active

3 - Fair Only small, slow moving waves, 45-65% of sperm cells are

 active

2 - Poor No waves are formed but some movement is visible, 20-40% of

sperm cells are alive but with poor motility

1 - Very Poor Only about 10% of spermatozoa show signs of life. Only weak

movement

0 - Dead All sperm cells are motionless

\*Use a warm stage and a drop of diluted semen under a coverslip. Determine percent of live and dead sperm and morphology

**Semen Diluents and Rate of Dilution:**

Diluent for Fresh Semen at 30-34 C – Skim Milk

\*Conception depends on the number of mobile spermatozoa and not volume. Diluent is used to extend life span of semen for 1-2 hours and to have a slighter higher volume for easier AI

Thick density and a motility of 4-5 can be diluted 1+2 – 1+3

 (Insemination dose 0.1 mL/ewe)

Thin density and motility of 3-4 diluted 1+1(insemination dose of 0.5-0.1mL)

 Transport of Fresh Semen:

\*Fresh semen diluted with the special diluent can be cooled down to 5-15 C and kept for 4-12 hours before AI. Semen lasts longer at lower temperatures.

*Acetic acid frozen-thawed ampulles (IMV France) is a practical and easy method to transport semen at 15-17 C in a small thermos flask- 3 ampulles needed per flask*

\* Semen tubes should be protected with cotton wool against direct contact with ice.