

Reproductive Behavior

What species are short, intermediate, and sustained copulators?

- Short: bull, ram, buck (stimulated by warmth, seconds after intromission)
- Intermediate: stallion (stimulated by pressure, 30 sec to 1 min)
- Sustained: boar (stimulated by pressure, up to 30 mins)

What are the three things needed for female reproductive behavior?

- Attractivity (posture, vocalization, pheromones)
- Proceptivity (female-female mounting)
- Receptivity (lordosis)

What is the difference in timing of reproductive behavior between males and females?

- Female sexual activity is limited to estrus
- Males are capable of initiating sexual reproductive behavior any time after puberty

How can we manipulate male sexual behavior?

- Introduce new females
- Change location
- Change location and introduce new females

What are some collection techniques we use for AI?

- Artificial vagina
- Electroejaculation Fertilization

Sperm in the FRT

What are the two types of sperm transport?

- Rapid transport: occurs within minutes of copulation and sperm can be found in the oviduct
- Sustained transport: delivers more sustained and uniformed sperm to the ampulla

What are two ways we 'lose' sperm?

- Retrograde loss (flows back out of vagina)

- Phagocytosis (spermatozoa are foreign to the female and are attacked by leukocytes)

Do sperm have catabolic or anabolic metabolism?

- Catabolic (cannot repair themselves, breakdown substrates for energy = when substrate is gone they die)

What is capacitation?

- Removal of decapacitation factors to allow for the acrosome reaction to penetrate the zona pellucida

What is the true acrosome reaction?

- Successful Fertilization

What enzymes are used during the acrosome reaction and what do they do?

- Hyaluronidase: breaks down cumulus oophorus mass
- Acrosin: digests ZP

Where does the acrosome reaction occur?

- Oviduct

What is polyspermy?

- Multiple sperm penetrating + fertilizing oocyte = embryo death