

BREEDING SOUNDNESS IN YAK BULLS

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WHAT I DO KNOW.

- YAK BULLS DEVELOP SLOWLY
 - PUBERTY 24 MONTHS
 - (SPERM PRESENT 1-2 YO)
 - FIRST BREEDING SEASON @ 3-4 Y.O.
 - NUTRITIONAL vs. GENETICS
- SEASONAL BREEDERS
 - MOST EFFECTIVE IN LATE SUMMER
- SCROTAL SIZE
 - IS SMALLER IN MATURE YAK BULLS
COMPARED TO BEEF OR DAIRY BULLS
- REPRODUCTIVE EFFICIENCY IS CLOSELY TIED
TO NUTRITIONAL RESOURCES
 - ASIA vs. NORTH AMERICA

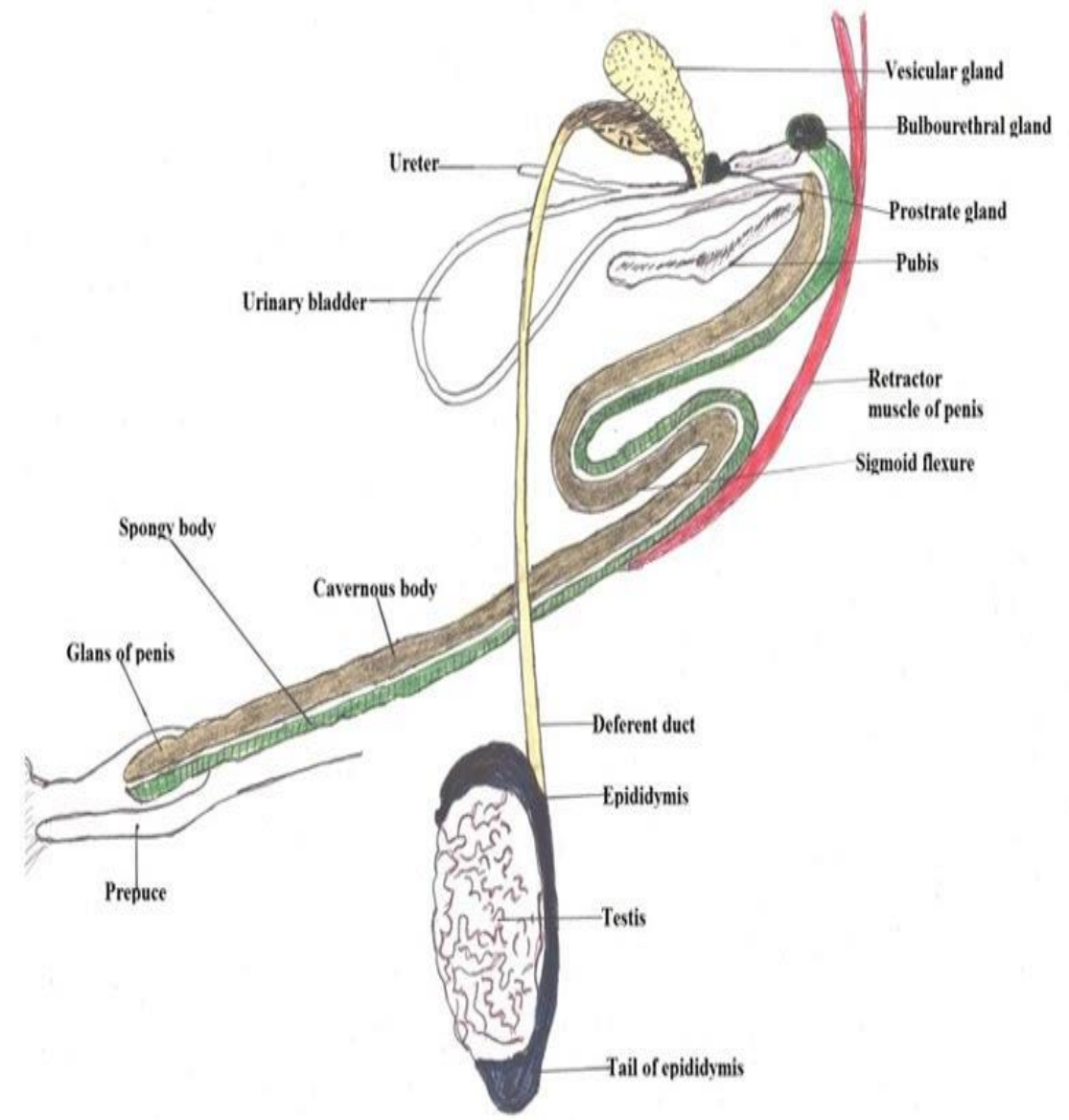
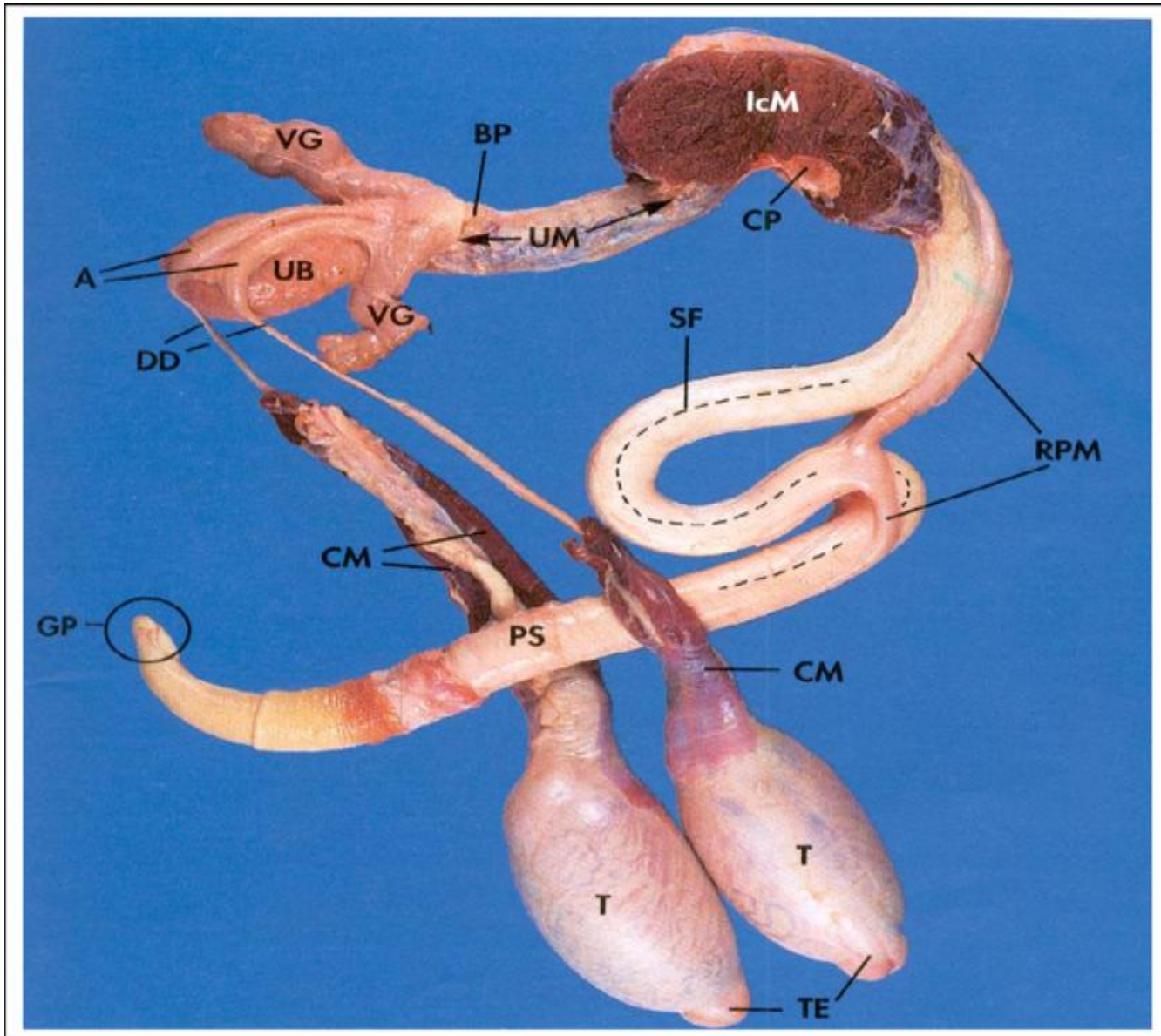
WHAT I DON'T KNOW.

EVERYTHING
ELSE????????????

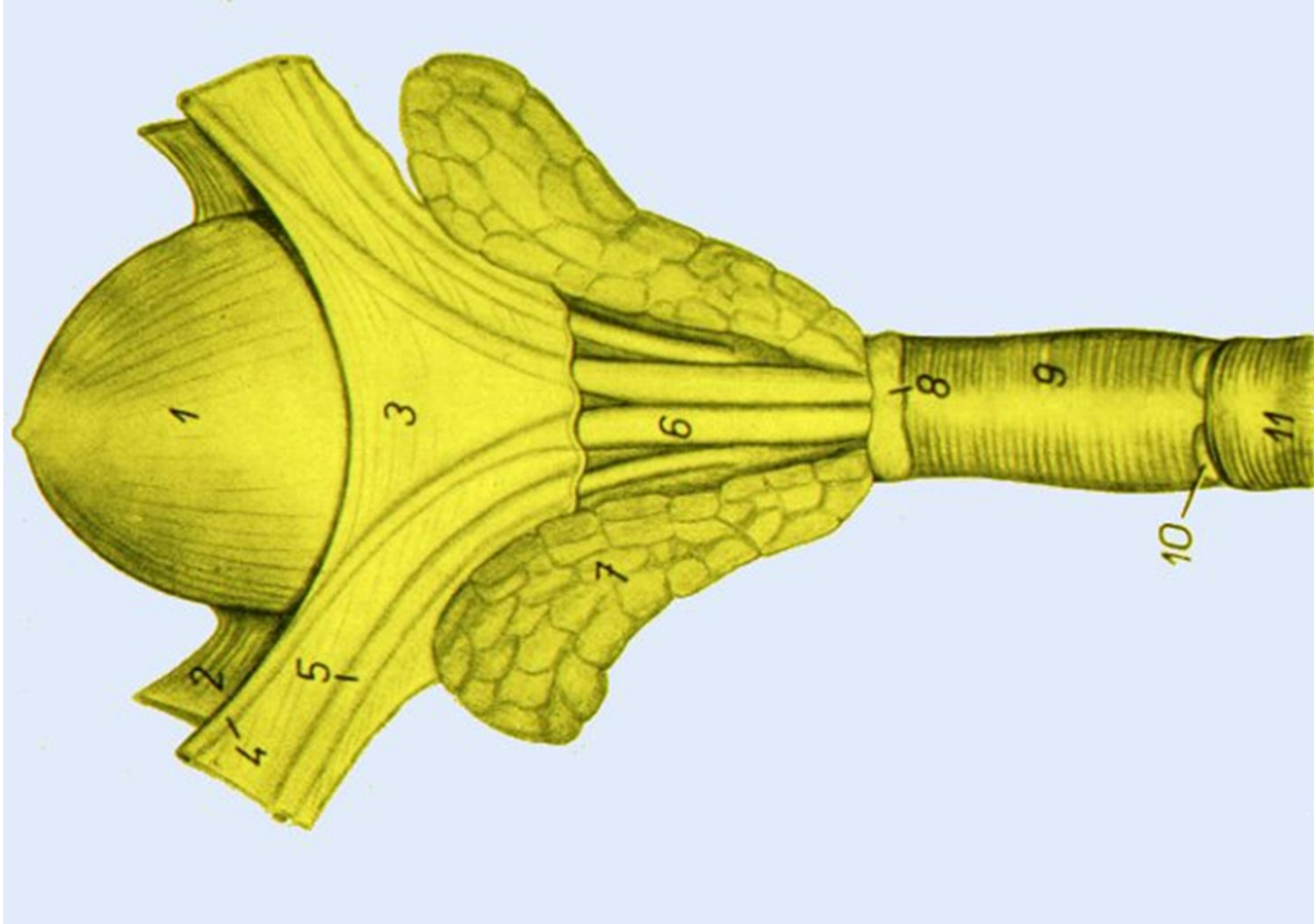
**VAST MAJORITY OF YAK RESEARCH SEEMS TO
COME FROM ASIA (MONGOLIA)**

- SCROTAL CIRCUMFERENCE
- MOTILITY
- SPERM CONCENTRATION
- MORPHOLOGIC ABNORMALITIES
- COORELATION OF THESE PARAMETERS
WITH PREGNANCY RATES

ANATOMY

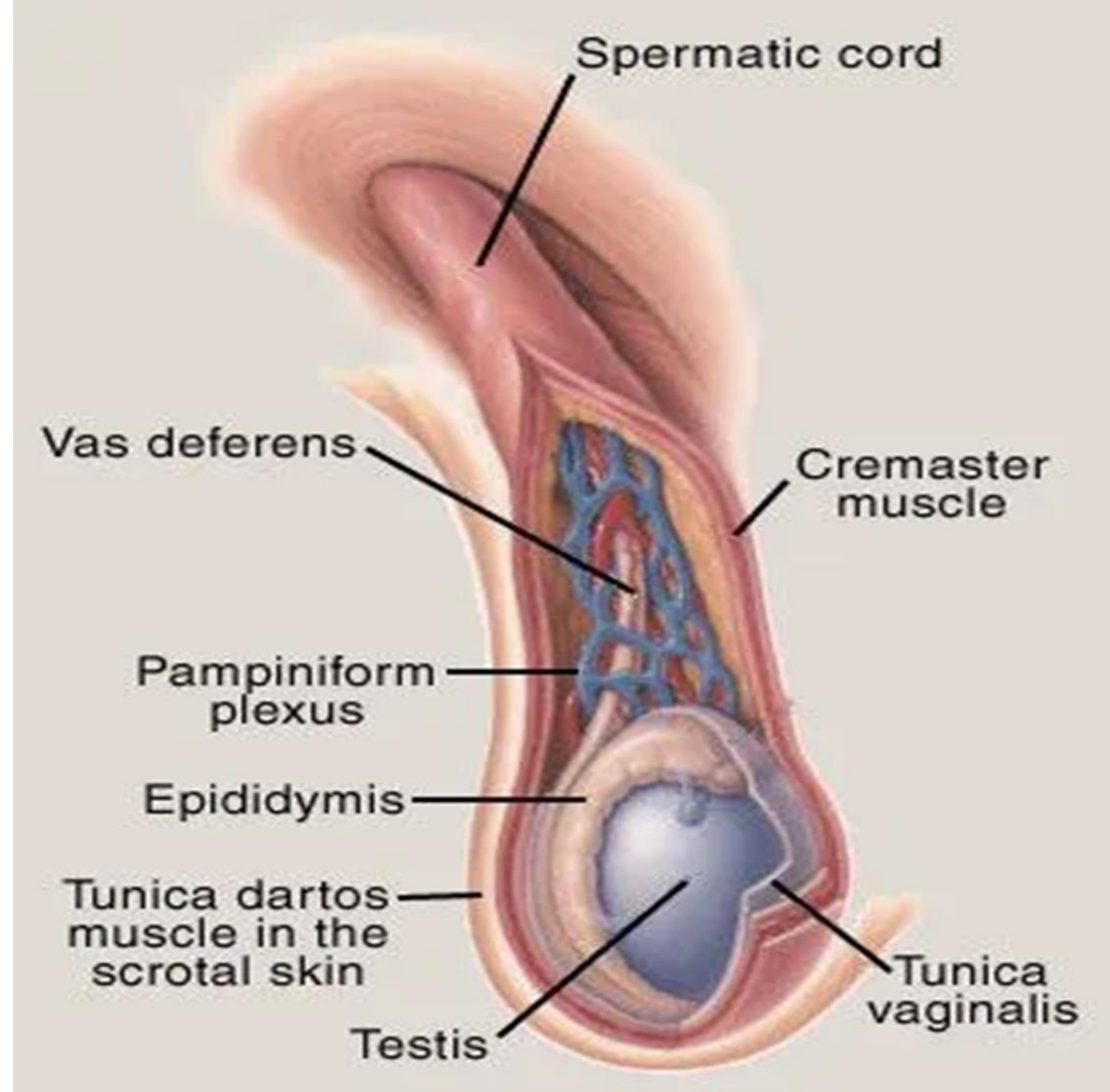


ACCESSORY GLANDS



THERMOREGULATION

- SPERM CANNOT BE PRODUCED AT BODY TEMP.
- SCROTUM IS 4-5 C COOLER THAN BODY TEMP
- ARE YAK BULLS PRONE TO TESTICULAR HEAT STRESS ???



PHYSICAL EXAM

- EYES
- FEET / LEG STRUCTURE

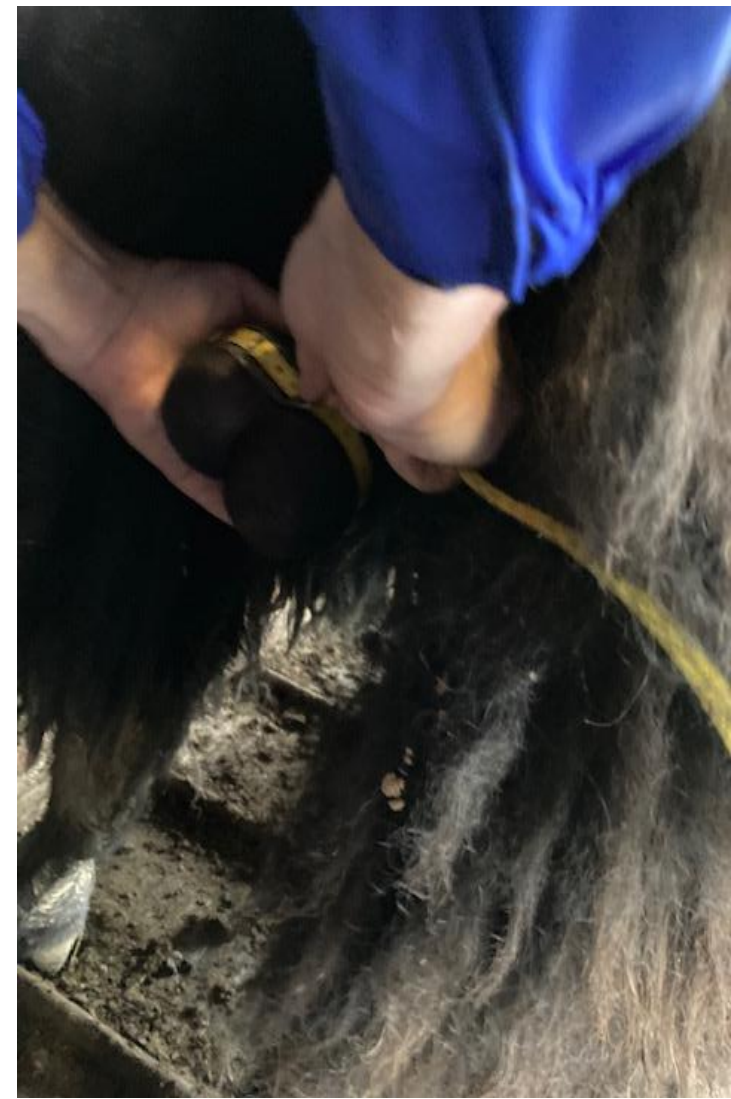


SCROTAL CIRCUMFERENCE



SCROTAL CIRCUMFERENCE

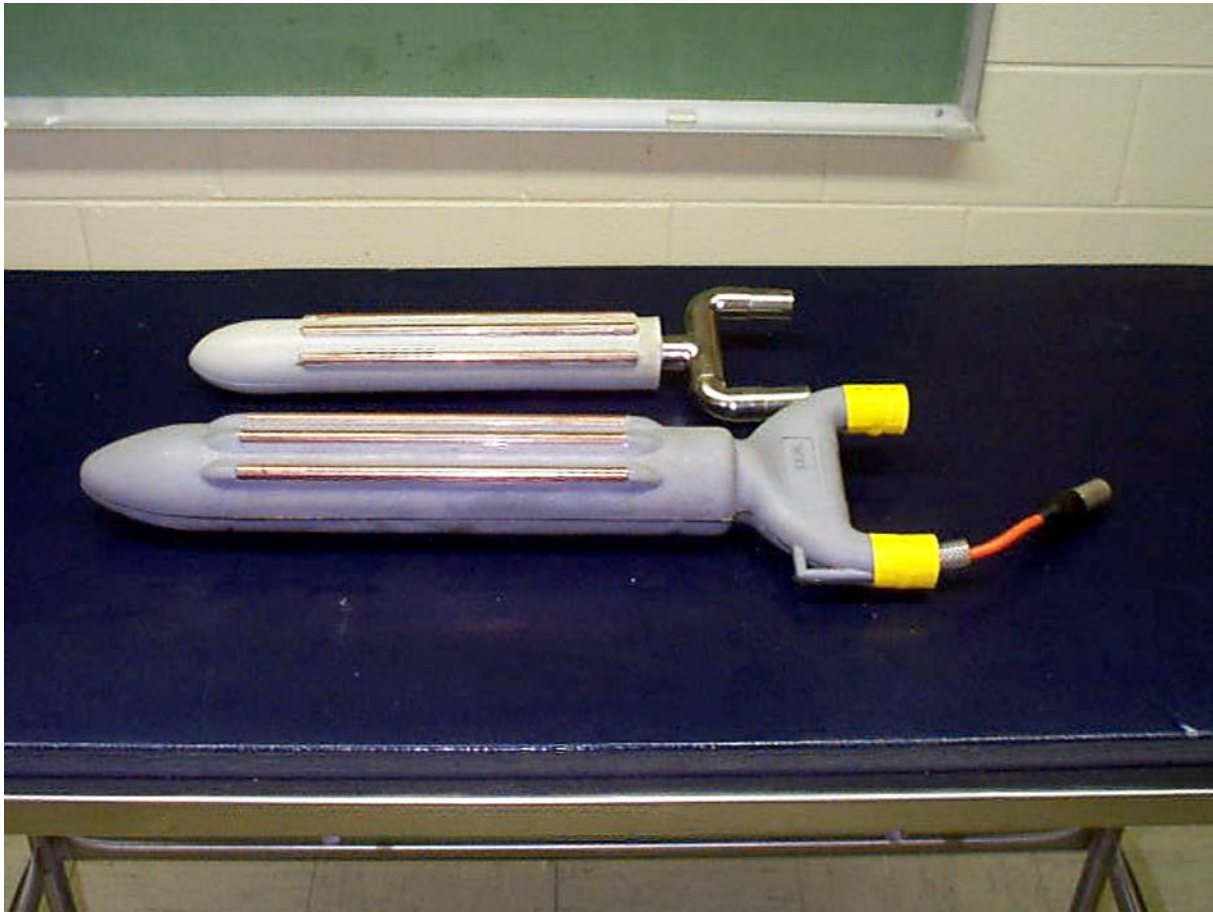
- HIGHLY HERITABLE
- INFLUENCES MALE AND FEMALE OFFSPRING'S FERTILITY
- COORELATES DIRECTLY WITH SPERM CONCENTRATION
- ***WHAT ARE NORMAL YAK BULL PARAMENTERS ??????***





SEMEN COLLECTION

- DIGITAL MASSAGE
- LIVE MOUNT – ARTIFICIAL VAGINA
- ELECTRO-EJACULATION

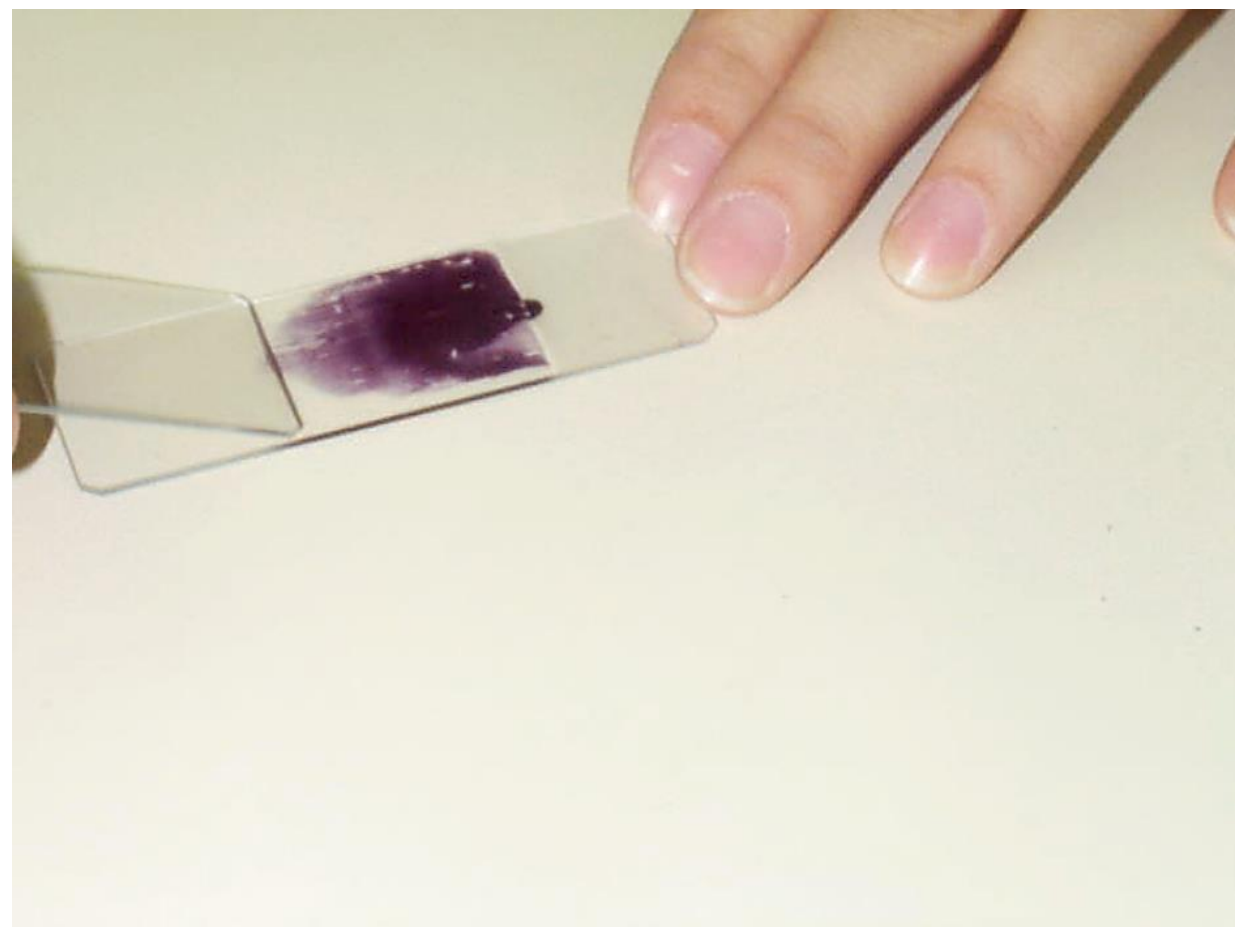
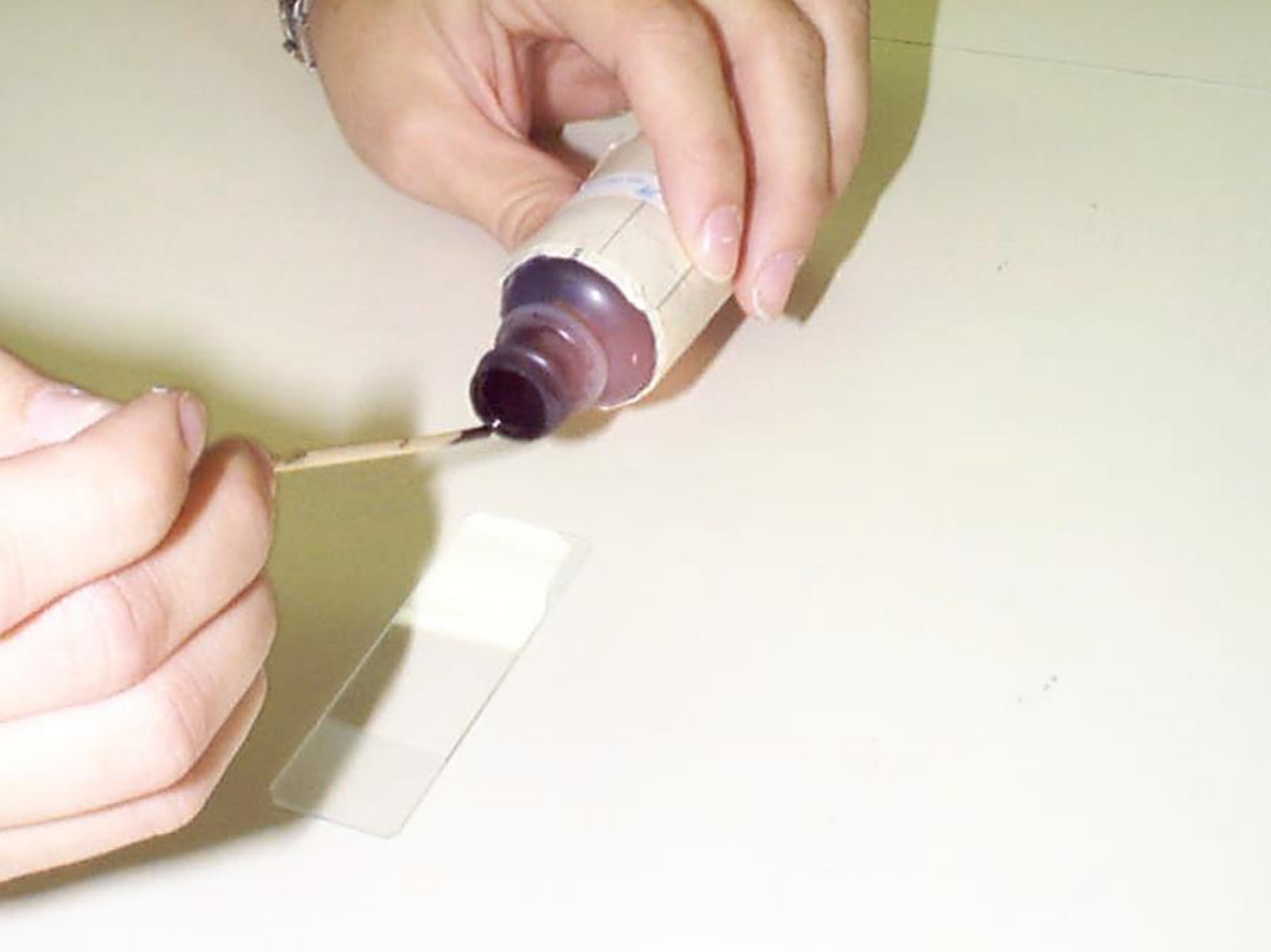


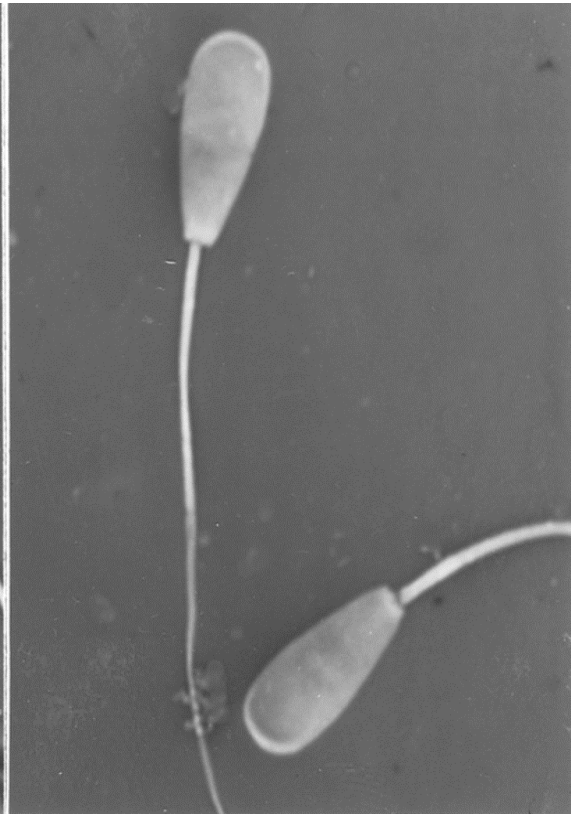
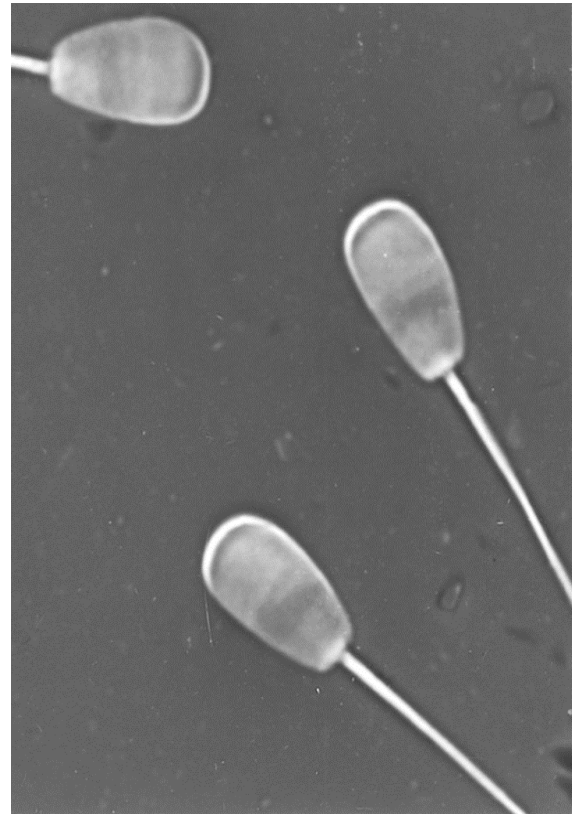


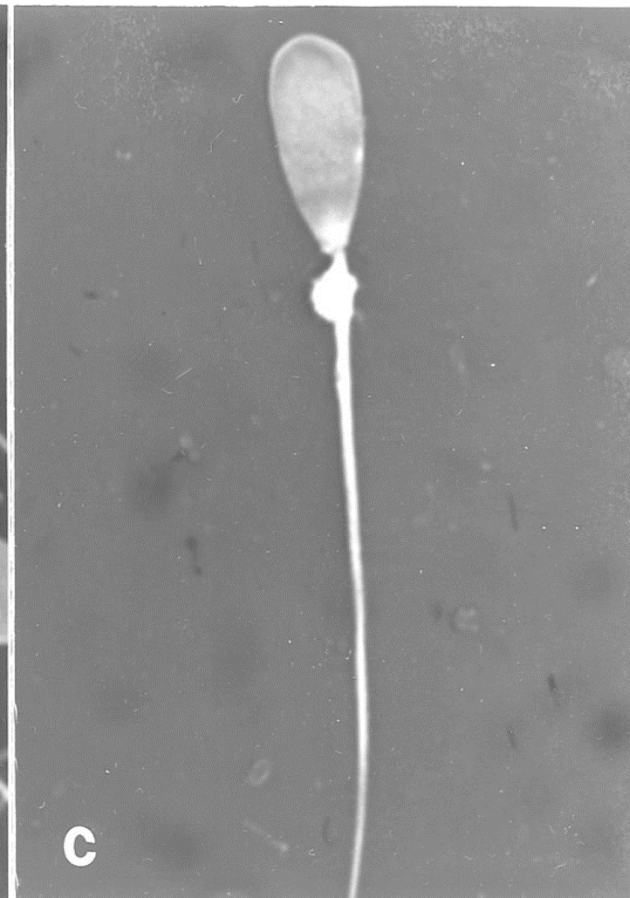
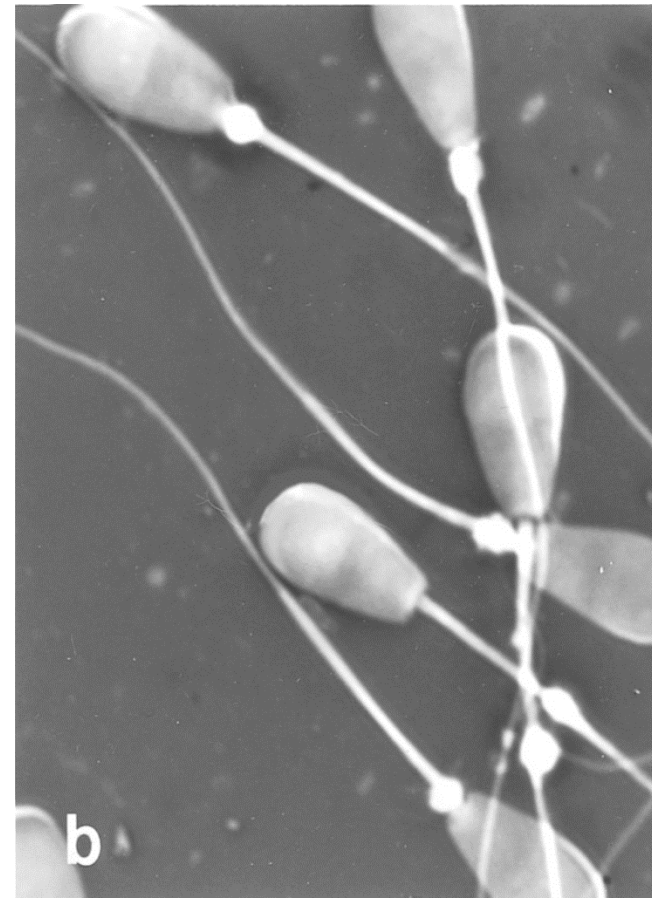


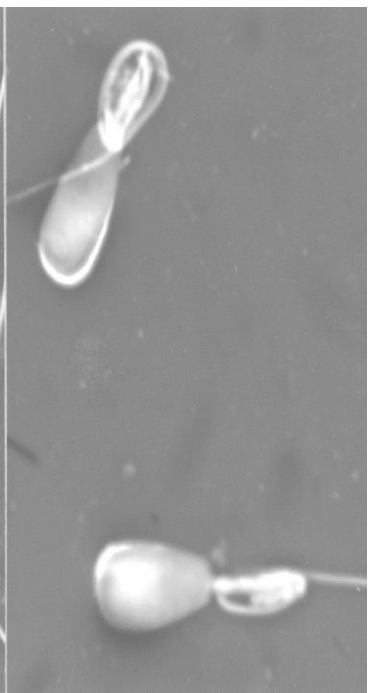
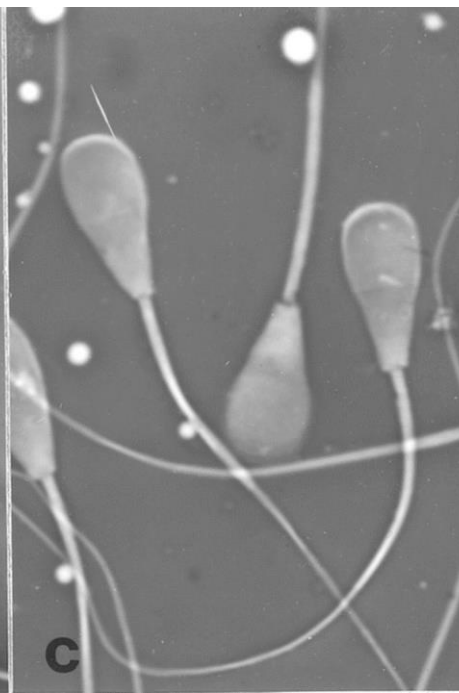
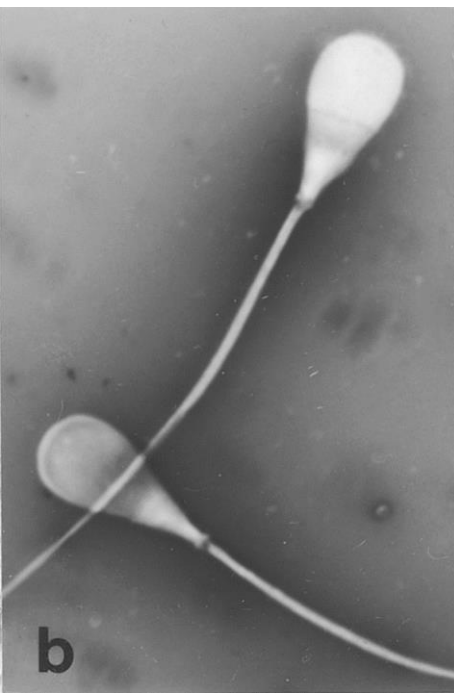
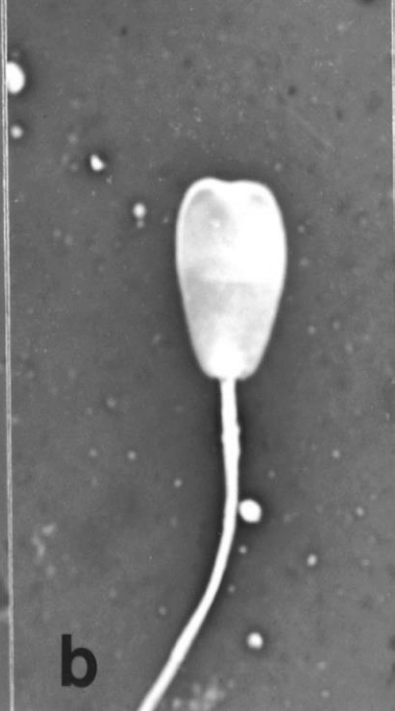
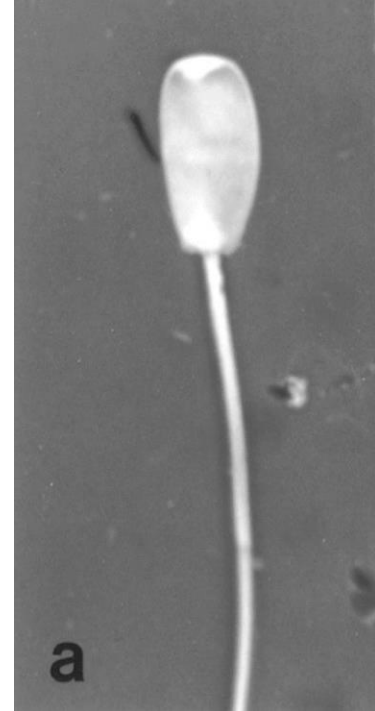
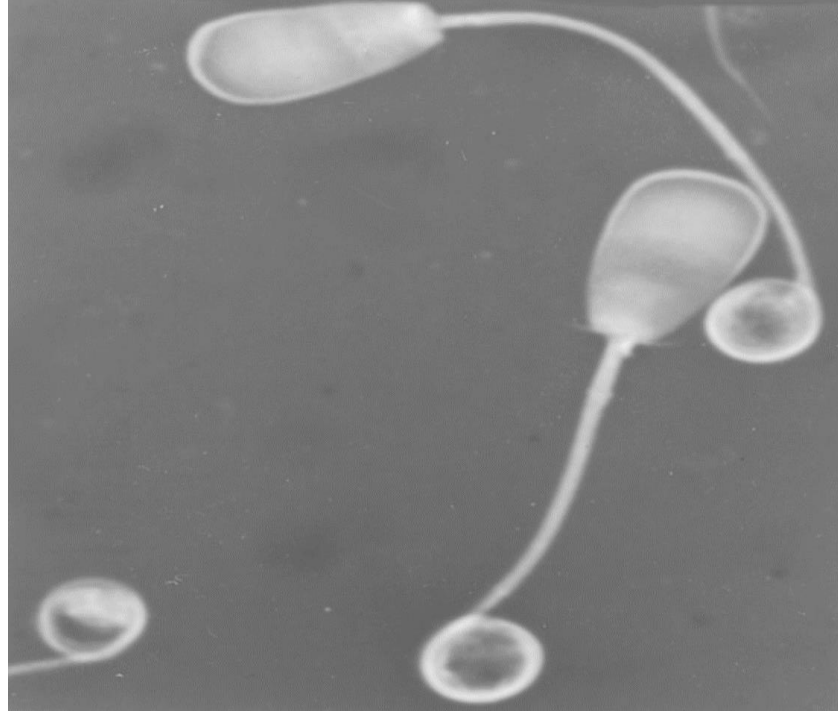
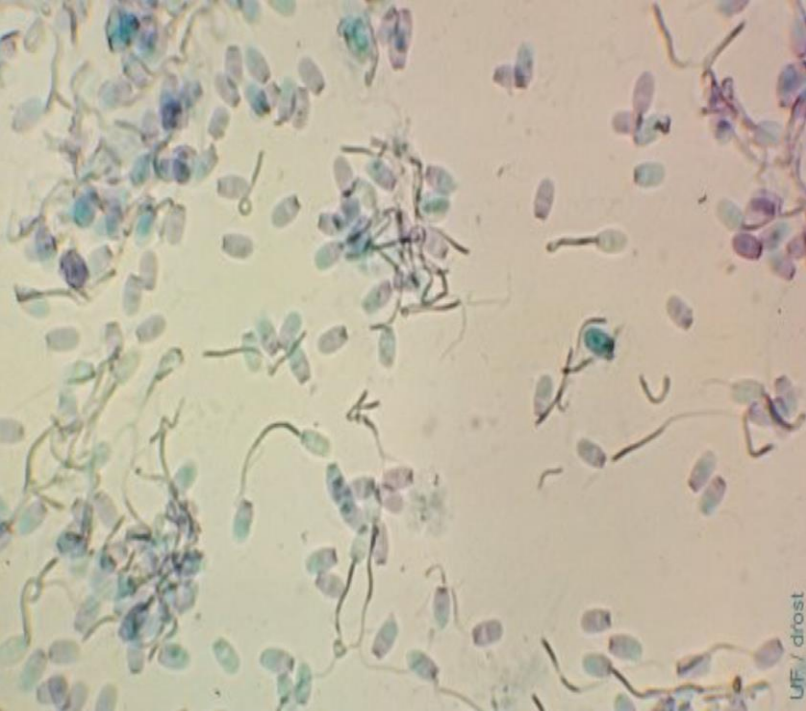


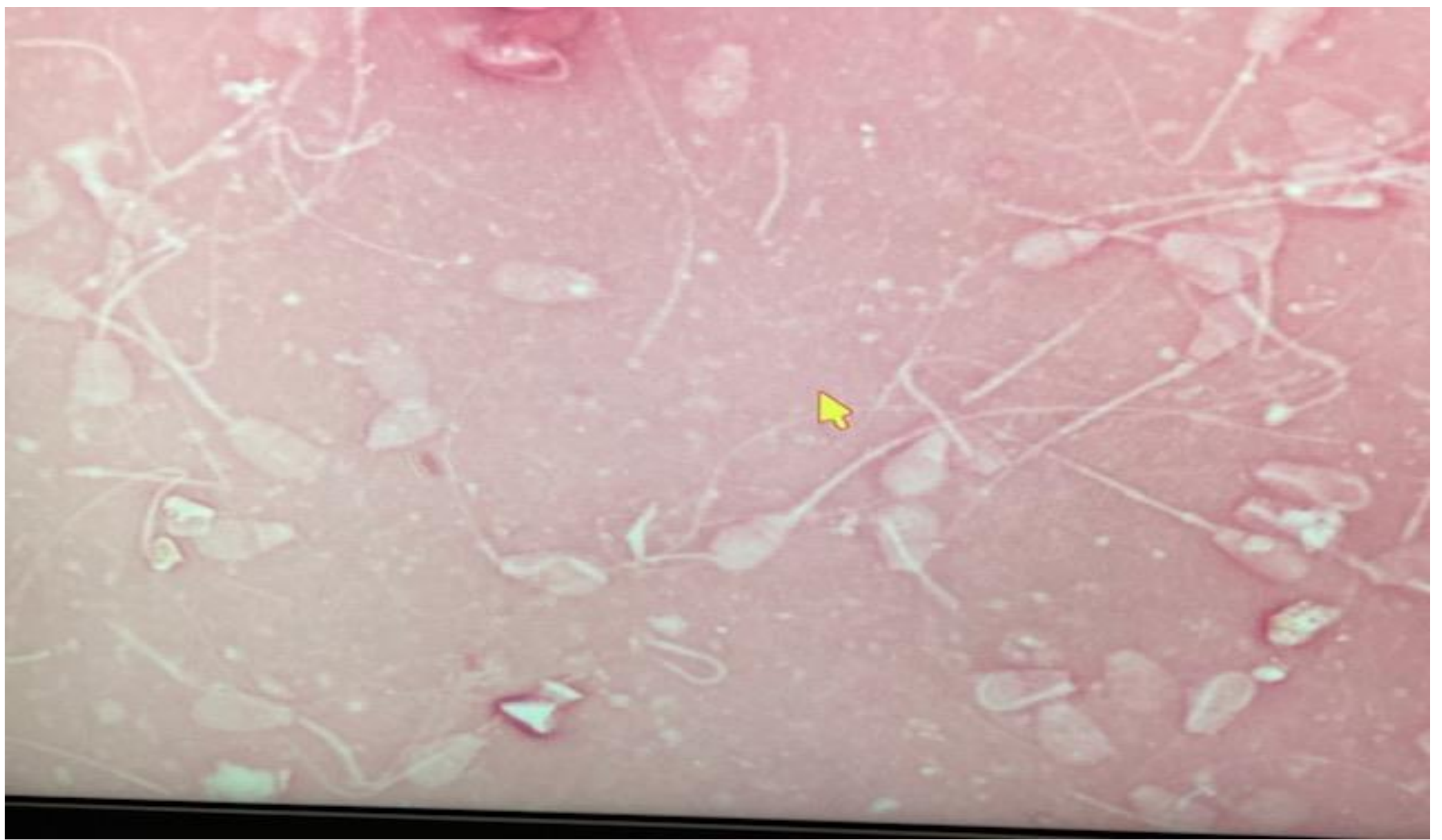












What Are the Appropriate Parameters for Yak Bulls ??????????????????????

PARAMETER	NORMAL VALUE FOR YAK BULLS – AV (Das,BC & Sarkar,M)
Ejaculate volume	3-4.5 ml
Sperm concentration	150-200 million/ml
Total sperm per ejaculate	600-675 million/ejaculate
Progressive motility	70-85% Progressive Motility (30% minimum)
Morphology	> 70% normal

BULL HEALTH MANAGEMENT

- BRUCELLOSIS (+)
- JOHNE'S (?)
- BVD (+)
- VIBRIO / LEPTO (+)
- TRICHOMONIASIS (?)
- INTERNAL/EXTERNAL PARASITE (+)
- ADEQUATE NUTRITION (+)

SUMMARY

- QUICK CHECK FOR MOTILITY IS NOT ADEQUATE
- YAK BULL FERTILITY CAN CHANGE FROM SEASON TO SEASON
- GENETIC INFLUENCE OF A YAK BULL CAN ONLY BE IMPARTED IF HE IS FERTILE



QUESTIONS ???

