

# Most Popular Recent Technologies in Goat Breeding

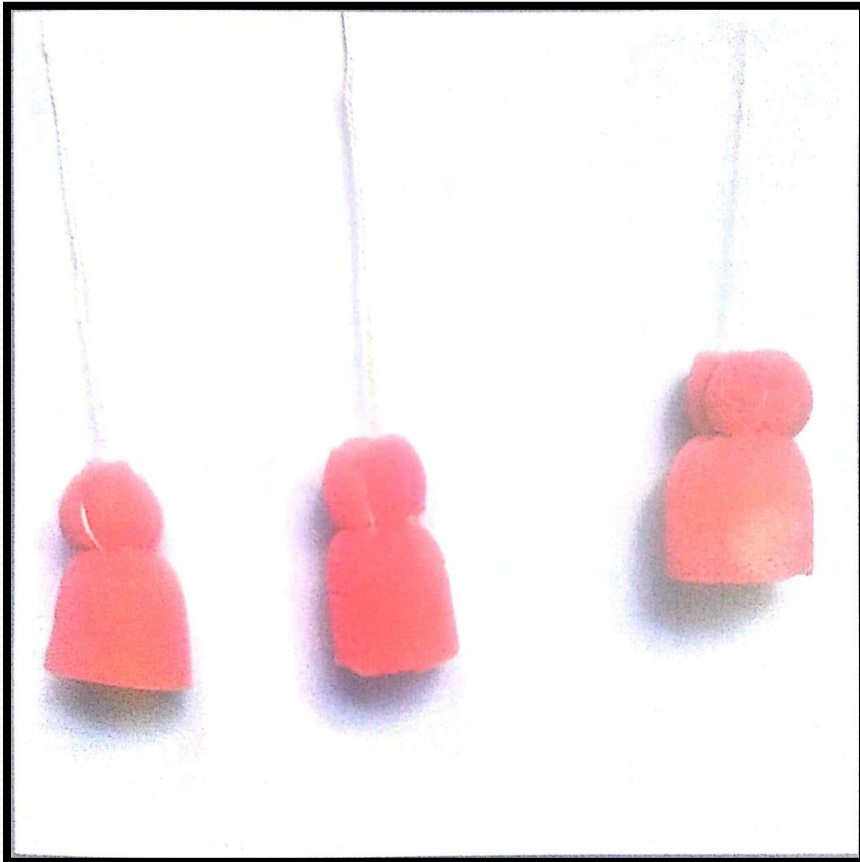
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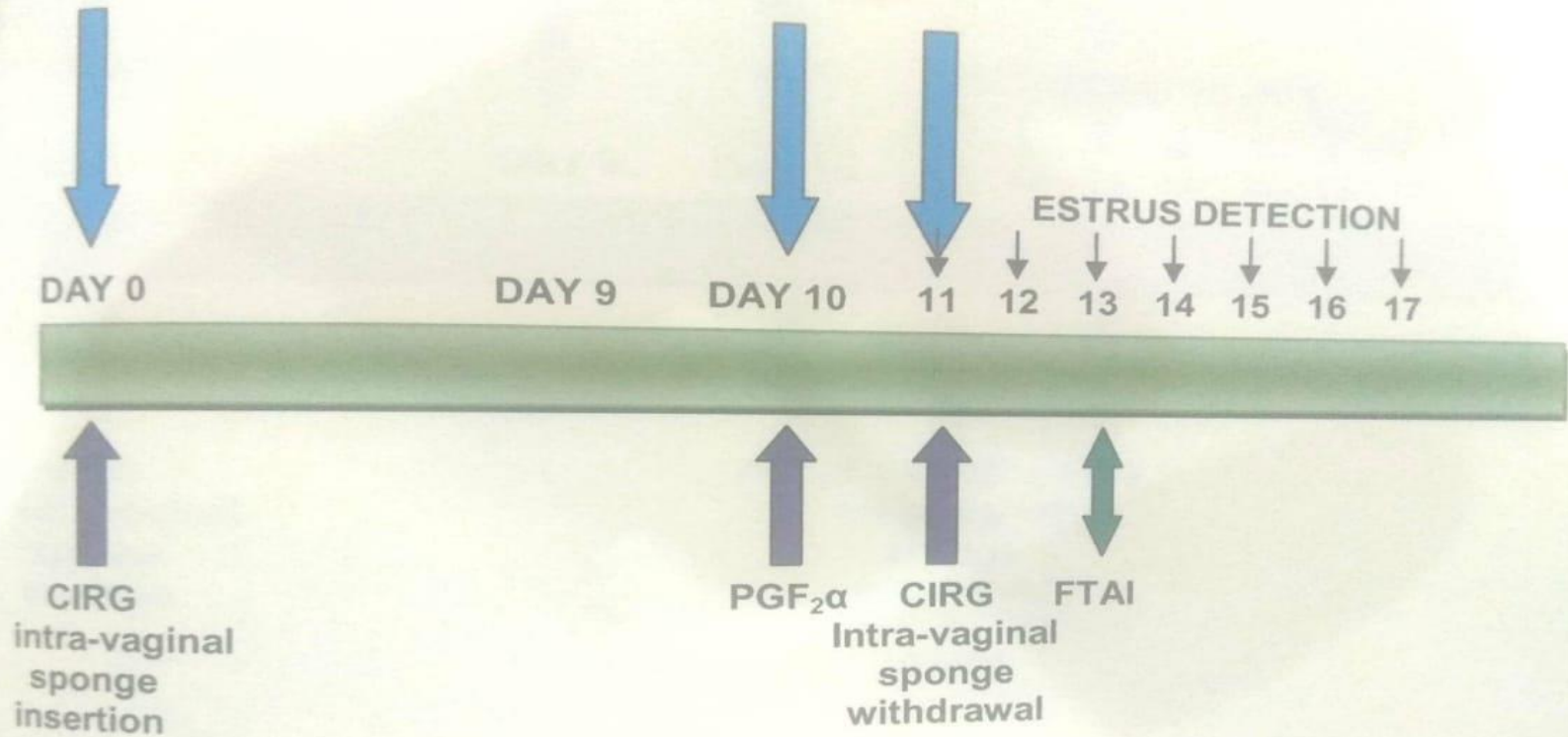
# Synchronization of Estrus

- 1) By killing the corpus luteum (CL) with PGF<sub>2</sub> alpha (PG).
- 2) By artificially extending the luteal phase with progesterone compounds.
- 3) It is possible to combine progestogen & PG treatment, the later being administered at sponge removal. This considerably shortens the progestogen treatment.

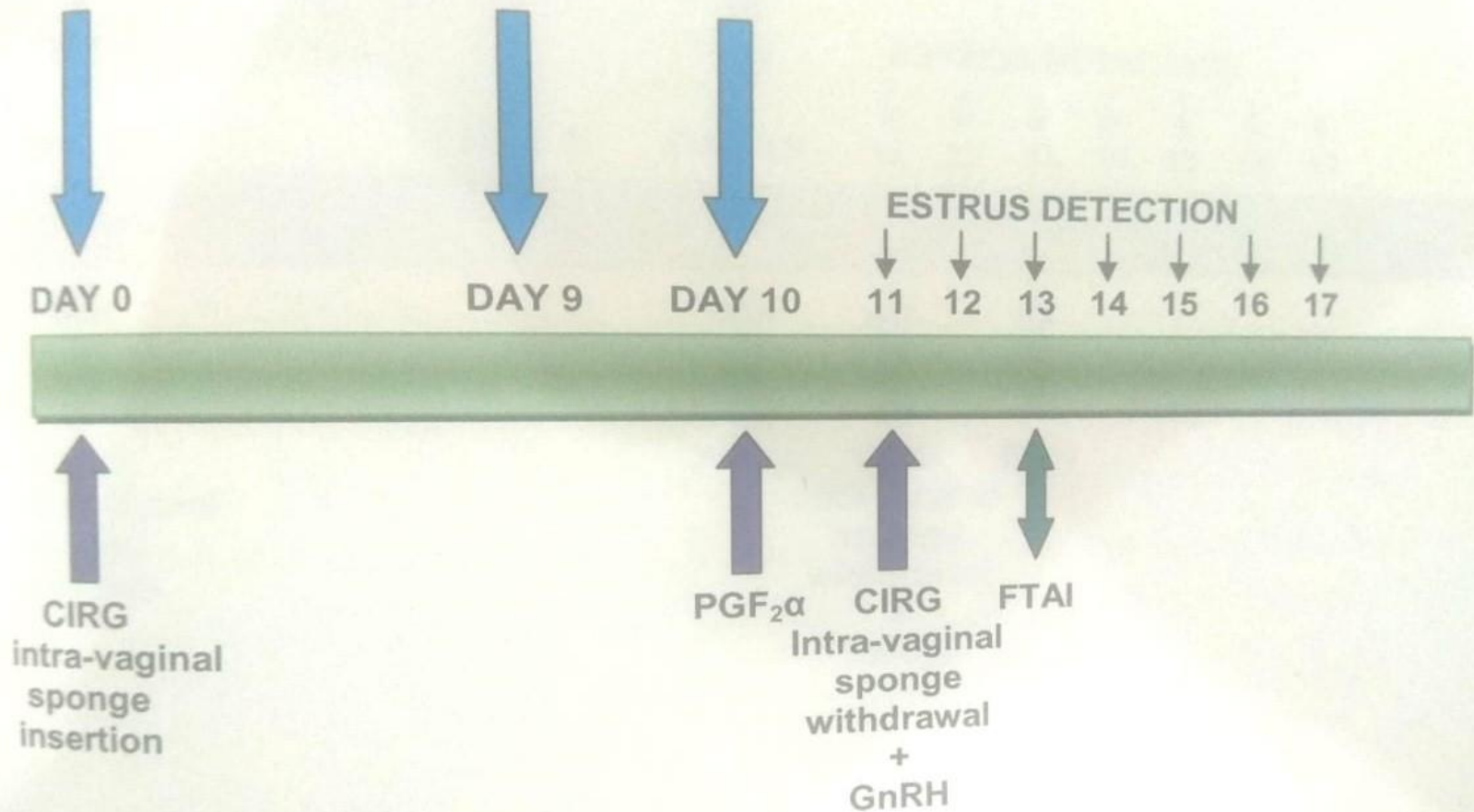
# Insertion of intra-vaginal sponge(COURTESY OF CIRG,INDIA)



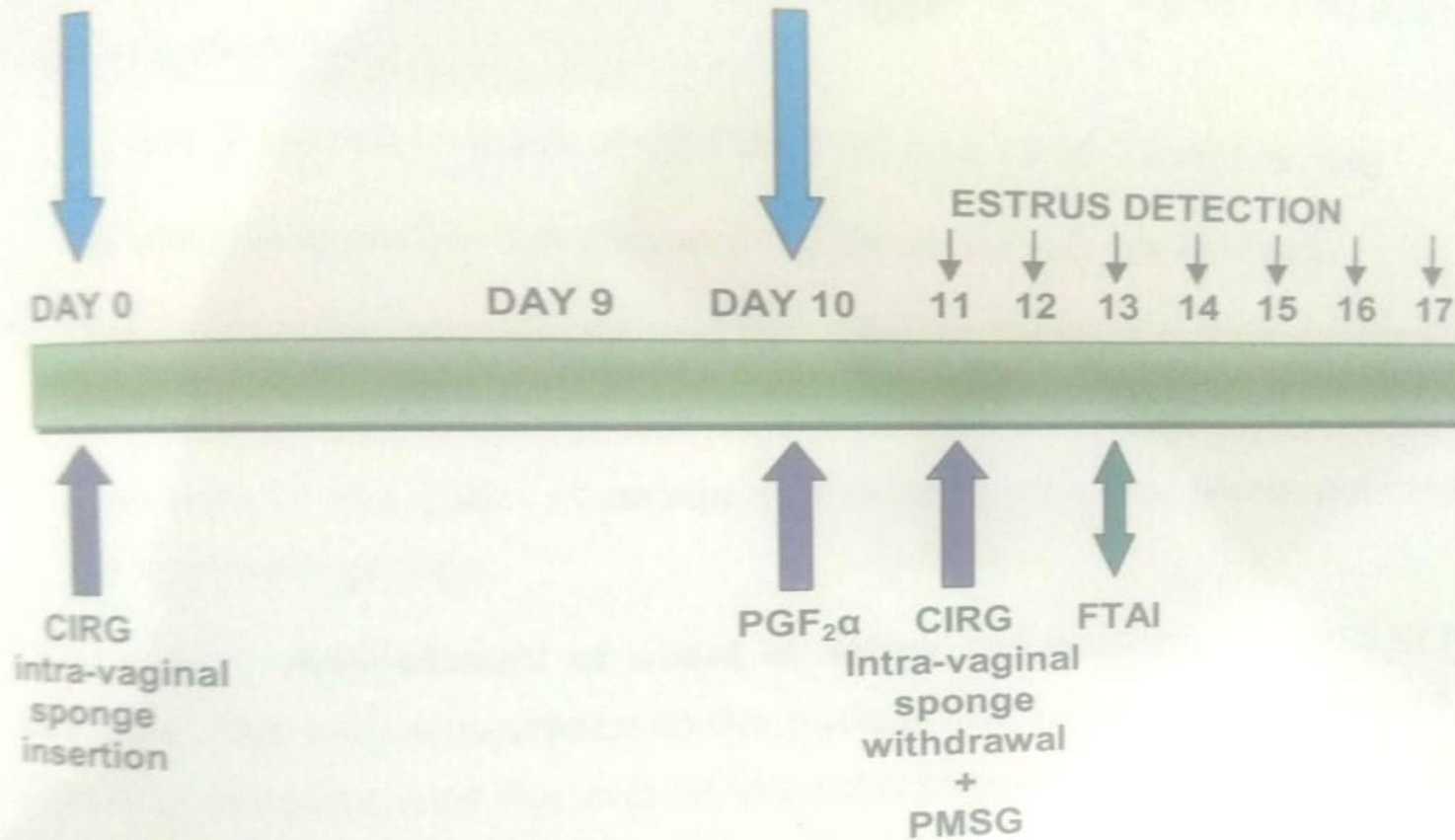
# Different Protocols for synchronization



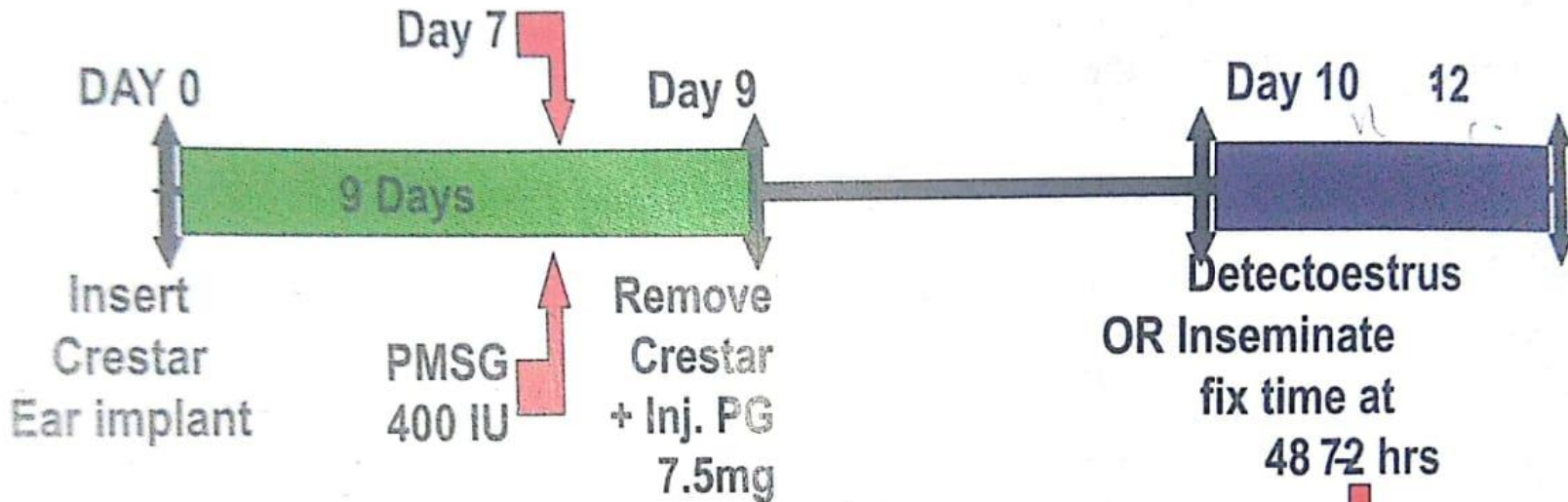
# Different Protocols for synchronization



# Different Protocols for synchronization



# Different Protocols for synchronization (Kharche et.al)



# *Some of the Protocols for synchronization used in olden days...*

- 1.MGA @0.15mg /doe /day for 16 days.  
Extent of synchronization : 96.12% & estrus occurs within 4 days
- 2. MGA @0.15 mg/doe/day for 15 days + Veteoesterol(10mg) or PG,  
Estrus synchronization : 80 to 100 %.
- 3.Intravaginal pessaries for 15 to 20 days with or without Vetoestrol (5 to 10 mg) or Folligon (400IU).  
Estrus synchronization : 100%.
- 4.Progesterone 12.5 mg/doe/day for 16 to 19 days + eCG (1000 TO 1500IU) S/C one day before completion of progesterone treatment.  
Estrus synchronization : 100%.



# Effects of Photoperiod

- Goats are considered “short day breeders”
- Female goats are classified as seasonally polyestrous.
- In western countries, some goat dairies have the practice of exposing breeding goats to total darkness for 17 hrs/day after the beginning of month of June to induce early onset of cycling (Ott,1988).

# Natural synchronization of estrus during breeding season

Isolate Does from intact males for six weeks prior to breeding season



Keep Vasectomized bucks with does for 4 days



Remove Vasectomized bucks



Replace with intact males

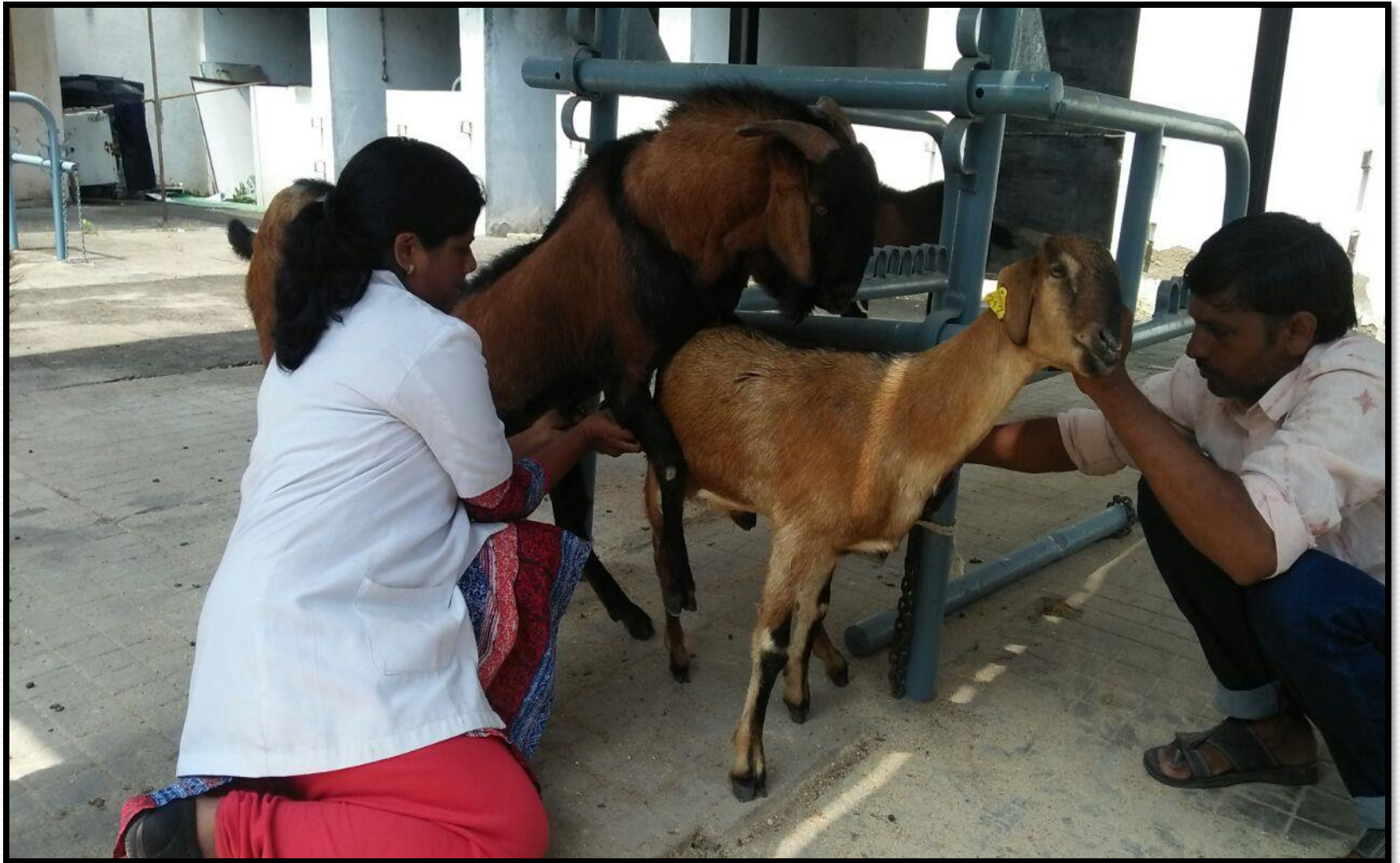


Cost Effective, No hormone use But not reliable

# Semen collection Apparatus



# Buck Semen Collection



# Semen Collected from Buck

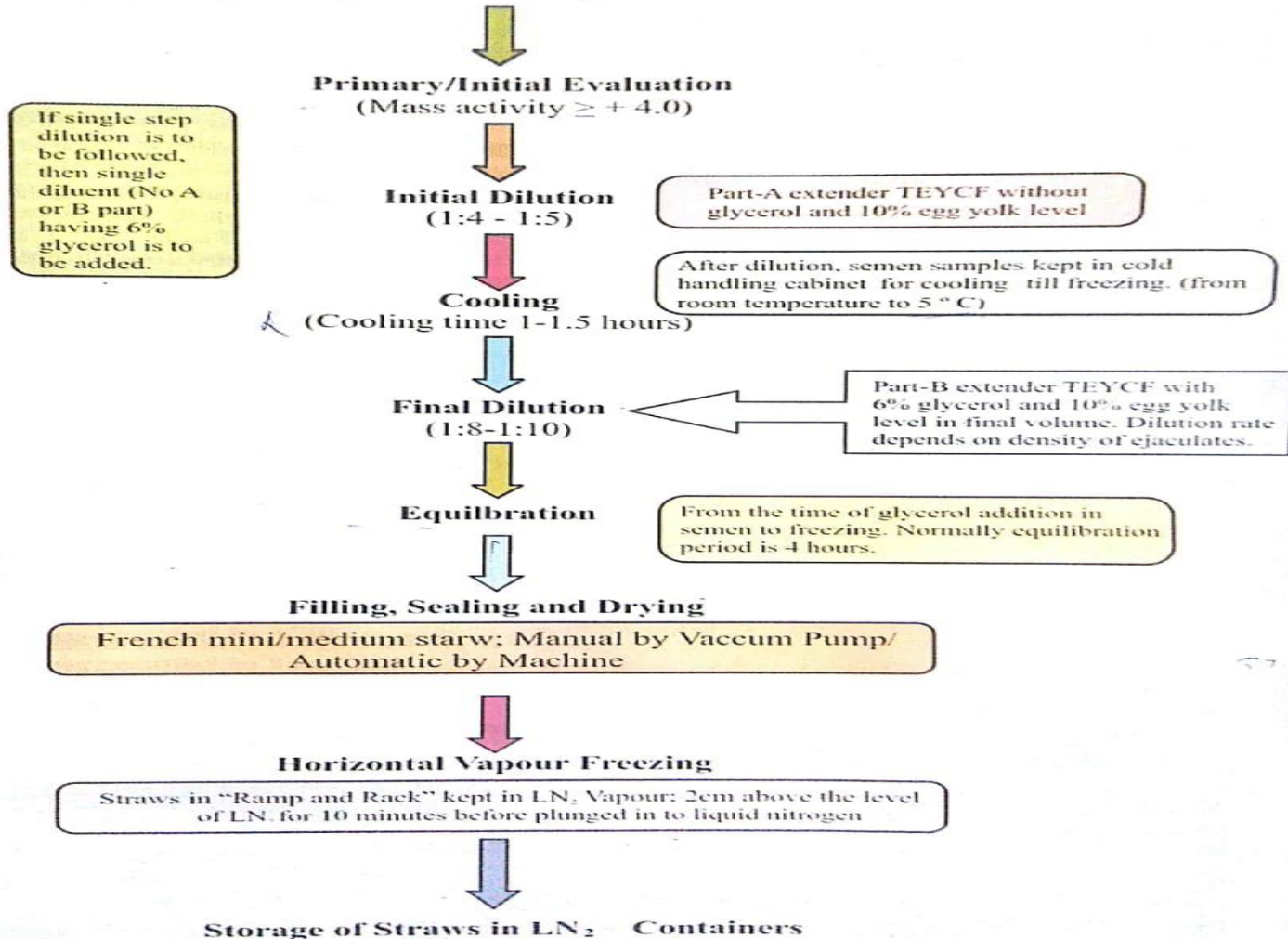


# Semen (Kharache et al., 2015)

SEMEN TECHNOLOGY AND ARTIFICIAL INSEMINATION IN GOATS

## Semen Samples

(Volume  $\geq 0.5$  ml; free from foreign materials like dust )



# Dilution of semen – courtesy of NARI, Phaltan.



# Courtesy of NARI, Phaltan





# Automatic Filling & Sealing Of Semen

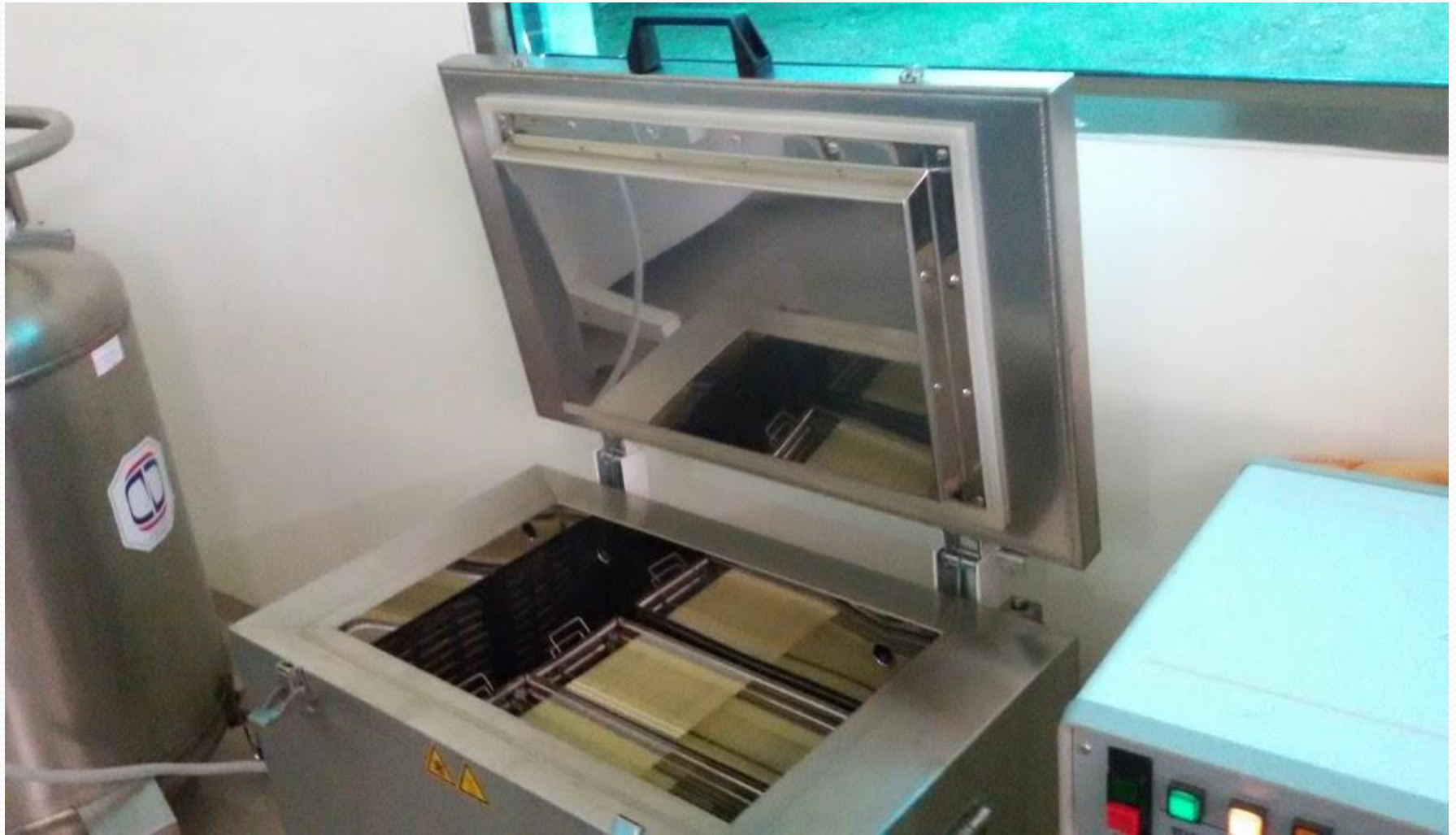


# Biological Freezer





# Biological Freezer- semen straws are laid



# Counting of Sperm Count through Accucell



# Sperm Count through Accucell



# Transfer of FROZEN STRAWS into LN2



# Location of Cervix with Speculum





# Location of Cervix



# AI in Goat (courtesy of NARI)



# AI in Goats



# Cervical Insemination



Thank you...

