

Ovum pick up – Embryo Transfer Technology (OPU-ETT)

Oocytes are collected from superior live animal and are allowed to mature, fertilize and cultured in-vitro before transfer to inferior quality recipients resulting in superior quality offsprings.

✓ Female calves with superior genetics and high milk production ability can be obtained even from surrogate mother with inferior genetics and low milk production ability

OPU-IVP Process

Donor

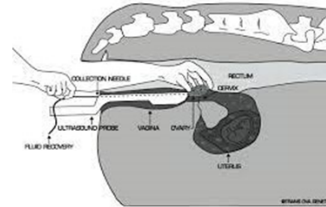
- True to breed
- Cyclic
- Superior genetic merit
- High milk yield
- Free from notifiable disease and reproductive tract disorders

Recipients

- Moderate to low genetic merit
- Good temperament and mothering ability
- Cervix should allow easy passage of catheter
- Free from notifiable disease
- Responsive to synchronization protocols

Step
01

Ovum pick-up (OPU) from donor



02

In-Vitro Maturation

Collected oocytes are matured in lab for 22-24 hours

03

In-Vitro Fertilization

Matured oocytes are co-incubated with sexed sperm for 16-20 hours

04

In-Vitro Culture

Fertilized oocytes are cultured for 7-8 days

05

Embryo Transfer

Embryos are transferred 7-8 days post-estrus to recipients

Do's

- ✓ Breed and lineage evaluation
- ✓ Milk recording
- ✓ General clinical examination
- ✓ Reproductive tract examination
- ✓ Testing for notifiable diseases
- ✓ Balanced ration feeding
- ✓ Vigilant supervision during pregnancy

Don'ts

- X Overfeeding or underfeeding
- X Unnecessary stress to animal
- X Housing with males
- X Mismanagement in housing
- X Selection of animals with pelvic deformities
- X Selection of animals with poor body condition