

ESTRUS SYNCHRONIZATION

Lecture 4

Synchronization using Progesterone and advantages

Content Creator

Dr. M. Selvaraju, Ph.D.,

Dean

Veterinary College and Research Institute, Namakkal 637 002

TANUVAS, Namakkal

drmselvaraju1969@gmail.com; 8778121093

PROGESTOGENS

Principle:

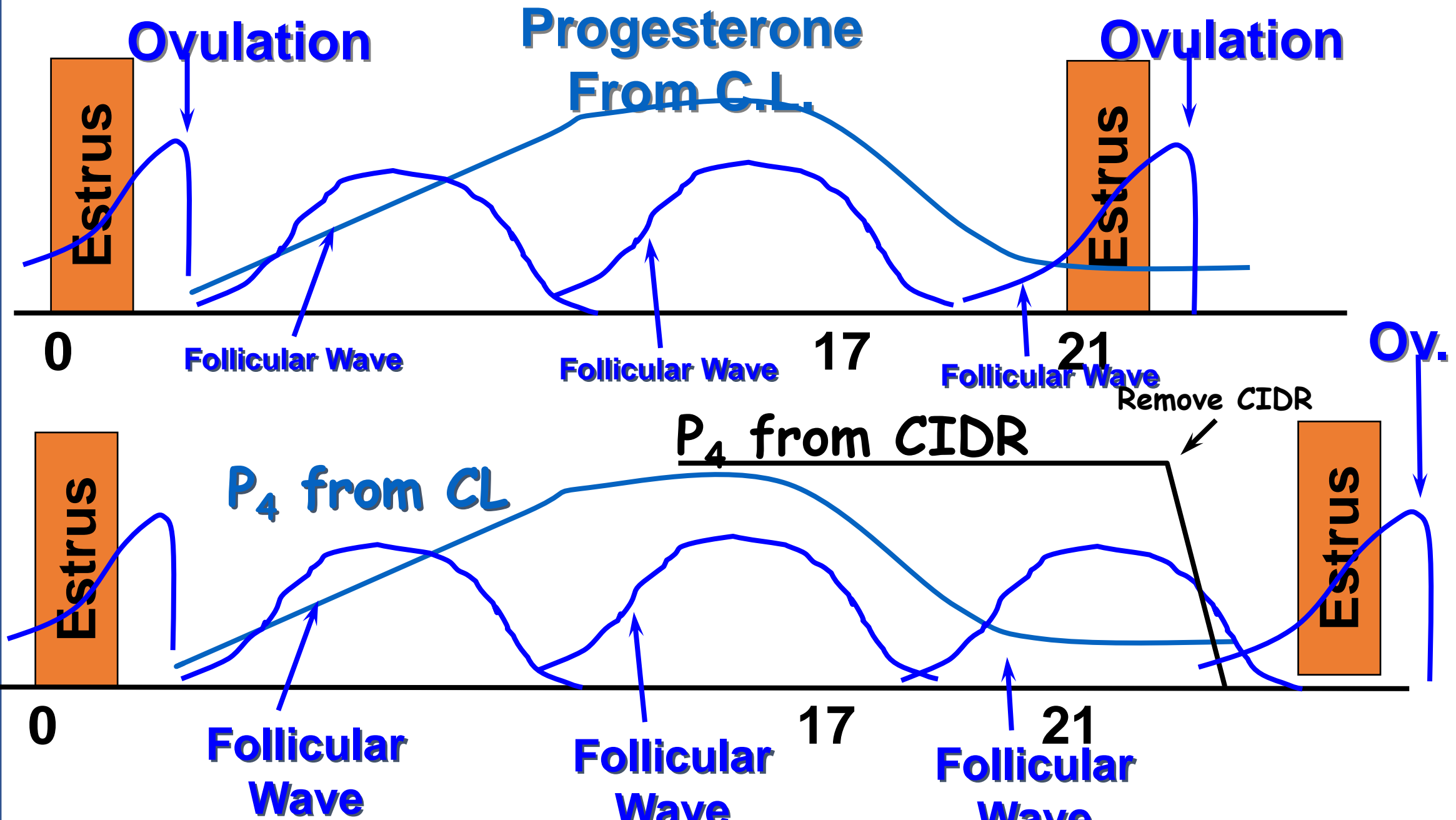
The exogenous progestogen continue to exert negative feedback on LH secretion after CL regression has occurred.

When the progestogen is withdrawn, follicular growth, estrus and ovulation occur within about 2-8 days.

Administration:

- Injection
- Feed
- Implant
- Pessary or Control Internal Drug Release (CIDR)

Progestens Effect on Ovulation



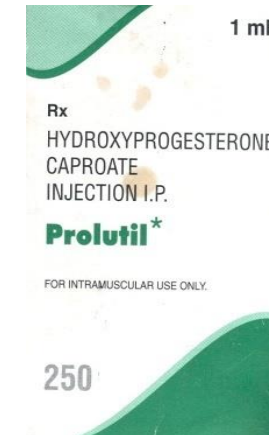
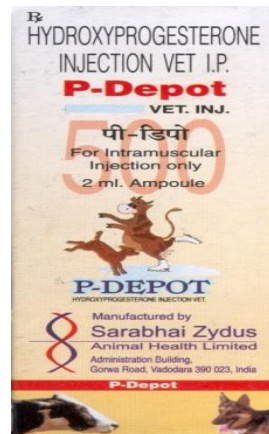
ADVANTAGES

- **CL need not be identified**
- **All the animals can be administered at the same time**
- **Even if the animal not cycling they bring the animal into estrus**
- **All the other conditions with prostaglandins are also applicable to progestogens for success**

PROGESTERONE INJECTIONS

50 mg daily or 500 mg every 10 days

Estrus will occur within 4-6 days post withdrawal of the treatment



ORAL PROGESTOGENS

**MAP – 6 methyl-17 – acetoxy progesterone
500 mg daily for 21 days**

**CAP – 6 –chloro – 6 – dihydro 17 –acetoxy progesterone
100 mg /day**

MGA - Melengesterol Acetate

Feed progestogen for 9 days (0.5 mg/head/day)

Prevents estrus in diestrus and proestrus animals

Remove progestogen on Day 9

Cows are in heat in 2-5 days

Simple to implement

Inexpensive

Heifers do not have to be handled



CONTROLLED INTERNAL DRUG RELEASING DEVICE (CIDR)

- T - shaped nylon spine molded with a silicone rubber skin
- **Contain 1.38 gm of progesterone**
- Inserted inside the vagina
- Progesterone released from the insert, causing the animals blood progesterone concentrations to increase rapidly
- It prevents GnRH release from hypothalamus
- After 9 days – removed – Sudden GnRH release causes animal to exhibit heat
- Breed at 48 & 72 hours



Rectal Examination



CIDR and its applicator



Insertion of CIDR into the applicator



CIDR applicator – Wiped with povidone iodine



CIDR inserted into the applicator



Washing of vulva



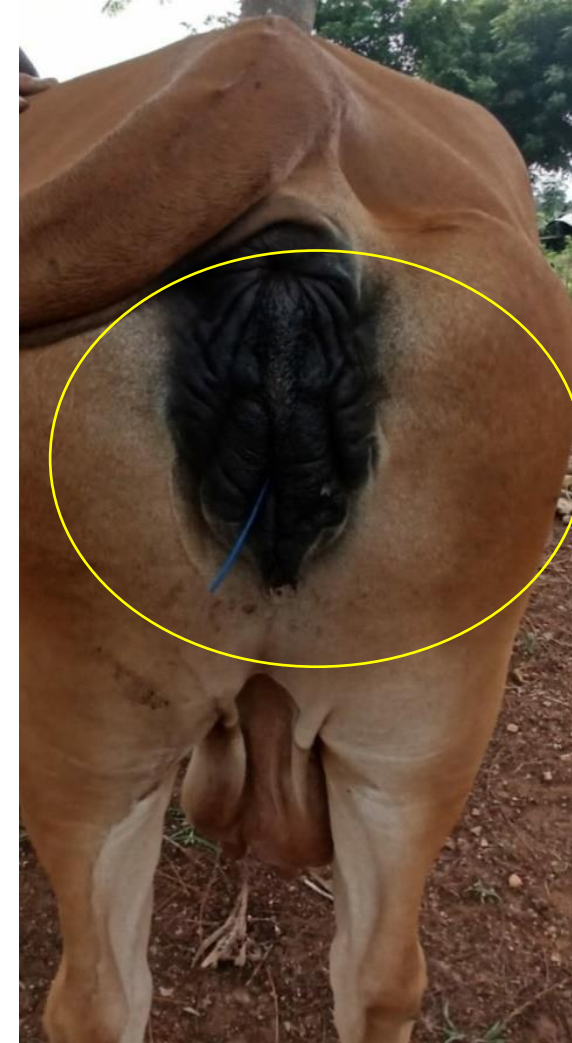
Cleaning of vulva with cotton



Insertion of CIDR



CIDR insitu

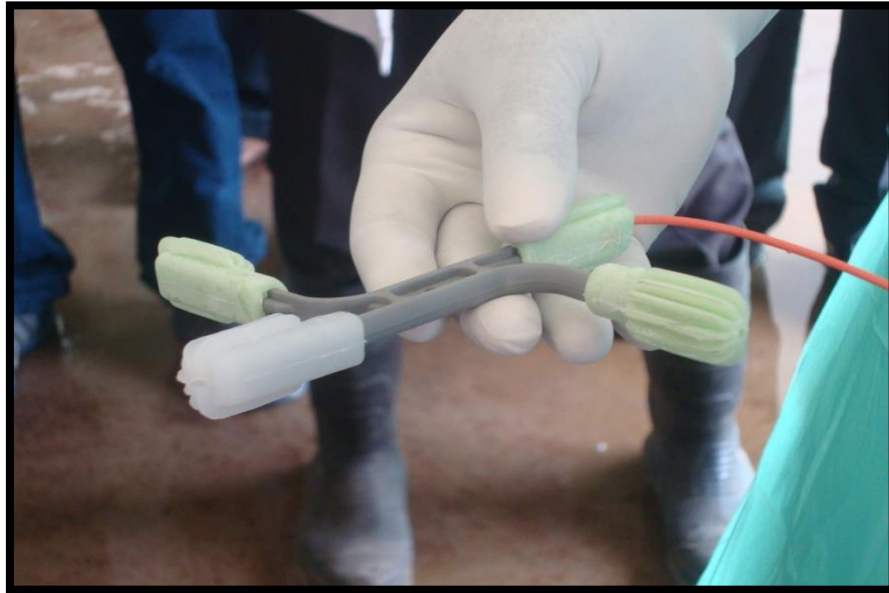


Progesterone impregnated intra vaginal device – TRIU B



- Each green ring has Progesterone 186 mg
- White color is dummy
- Additional pink color ring has 400 mg

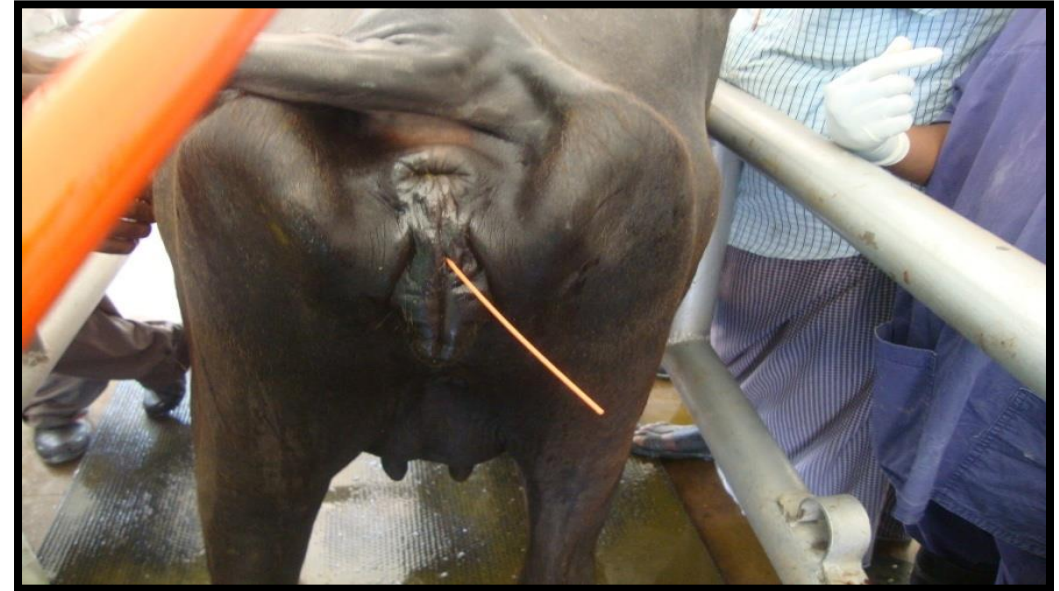
Progesterone impregnated intra vaginal device – TRIU B



Progesterone impregnated intra vaginal device – TRIU B



Progesterone impregnated intra vaginal device – TRIU B



Progesterone impregnated intra vaginal device – TRIU B

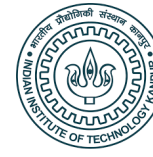


Other details are same as CIDR

TRIU – B INSERTION



CVE – AGMOOCS - TANUVAS



THANK YOU