

# SYNCHRONISATION FOR MAIDEN HEIFERS

The use of synchronisation makes calving your heifers in the first month a possibility. Where heifers are away from the main farm or if help is scarce, it can facilitate the use of AI where otherwise stock bull may be used. There are various options available depending on facilities, labour and proficiency of heat detection.

## OPTION 1 – PG INJECTION ON DAY 7

HEAT DETECTION FOR 12 DAYS - ALL BRED ONCE	
Day 0 - Day 7	AI on observed heat - should have 1/3 detected at end of week.
Day 7	PG to heifers not detected in heat. Only inject if 1/3 bred- otherwise investigate
Day 7-12	AI on detected heat. Majority on 48-72 hours post PG injection

- ▶ This is a cost-effective synchronisation regime that can achieve high conception rates.
- ▶ There is a requirement for heat detection for 12 days.
- ▶ Inform your technician before injecting PG on day 7 to ensure he has capacity on day 9 and day 10 as the majority will be in heat these days.
- ▶ Also ensure you are fully available on these days for heat detection and drafting.
- ▶ The injection can be delayed by a day or 2 if necessary.
- ▶ If 1/3 of heifers are not bred in the first week – investigate. They may not be observed in heat because: they are not cycling – under weight or intakes have reduced, they are pregnant, or heat detection is not working.
- ▶ Remove the vasectomised bull if 3 or more heifers are expected per day to avoid injury. Apply scratch cards and/or crayons if not already being used with the vasectomised bull.
- ▶ If releasing the bull on day 13, ensure he is not overworked 18-24 days after the majority of heifers were bred following the PG injection. Heat detect and AI if more than 2 heifers are on. Alternatively remove the bull and heat detect for those 4-6 days

## OPTION 2 – FIXED TIME AI PROGRAMME

4 HANDLINGS - ALL ANIMALS BRED	
Day 0	Insert P4 Device & Inject GnRH
Day 5	Inject PG
Day 6	Inject PG and remove P4 Device
Day 8	Fixed time AI 48 hrs after P4 Device removal and inject GnRH.

- ▶ This is an 8-day programme involving 4 visits to the crush and ending with fixed time AI of all heifers with no requirement for heat detection.
- ▶ This programme eliminates heat detection turning reactive work into planned work with all heifers being bred on a given day with excellent results possible to achieve.
- ▶ It will not overcome poor management and all heifers need to be above target weight, cycling and on a suitable plain of nutrition.
- ▶ Careful planning is required to ensure your technician or technicians are available at the required time and the required semen is in the tank.
- ▶ Liaise early with your veterinary practice to ensure availability of personnel and drugs to start the programme.
- ▶ Facilities and help are crucial. If possible, divide heifers by sire they are receiving and help the technician as an efficient stress-free routine will maximise results.
- ▶ All repeats will occur between 18-24 days. If 2 or more repeats are expected per stock bull per day, the best advice is to remove the bulls on day 16 or 17 and apply heat detection aid. Heat detect and AI for the 7 days.
- ▶ If bull power is adequate, monitor heats per day and AI if too many come on a given day.

Table of Hormones required, route of application and example products:

	Hormone	Route	Example
P4 Device	Progesterone releasing device	Intra uterine	PRID, CIDR
GnRH	Gonadotrophin releasing hormone	Intramuscular	Receptal, Overelin, Acegon, Busol
PG	Prostaglandin	Intramuscular	Estrumate, Lutalyse, Enzaprost

Products containing the above hormones are prescription only medicines and must be prescribed by your veterinary surgeon.

- ▶ The PRID or CIDR need to be inserted hygienically. Failure to do this will lead to excessive vaginal discharge and reduced conception rates.
- ▶ It is advisable to shorten the strings of the PRID/ CIDR particularly in heifers, as a rogue heifer may pull out several devices.
- ▶ If a heifer has already lost a device at removal, mark her and ensure she gets conventional semen and not sexed semen.
- ▶ Always contact your technician/breeding advisor prior to starting any programme to ensure availability of technician(s) on the day for fixed time AI.