FAST FACT

RECIPIENT SYNCHRONIZATION PROTOCOLS

Estrus synchronization is commonly used to set up recipient cows for embryo transfer (ET). For recipients to receive an in vitro fertilization (IVF) embryo, cows should be in heat 7 to 8 days prior to the day of ET. To maximize the number of recipients, cows can be synchronized using a variety of protocols including the 7 day CO-Synch + CIDR protocol (Table 1), the 5 day CO-Synch + CIDR protocol (Table 2), or the Double OvSynch protocol. These protocols take 10 to 17 days to implement, therefore recipient programs need to be scheduled in advance of ovum pick-up for fresh transfers. Heat detection can also be utilized by recording heats and then transferring embryos 7 days later.

TABLE 1: 7 DAY CO-SYNCH + CIDR PROTOCOL

DAY OF WEEK	DAY	RECIPIENT(S)	DONOR(S)
Saturday	0	A.M. – CIDR in and 2 cc GnRH*	
Saturday	7	P.M. – CIDR out and 2 cc PG**	
Monday	9	A.M. and P.M. – Heat detect and record heats	OPU Collection
Tuesday	10	A.M. – Give all recipients 2 cc GnRH; A.M. and P.M. – Heat detect & record heats	
Tuesday	17	A.M. – Embryo Transfer	

* Gonadotropin Releasing Hormone
** Prostaglandin

TABLE 2: 5 DAY CO-SYNCH + CIDR PROTOCOL

DAY OF WEEK	DAY	RECIPIENT(S)	DONOR(S)
Monday	0	A.M. – CIDR in and 2 cc GnRH*	
Saturday	5	A.M. – CIDR out and 2 cc PG**; P.M. (+/- 8 hr after 1st PG shot) – Give second 2cc PG dose	
Monday	7	A.M. and P.M. – Heat detect and record heats	OPU Collection
Tuesday	8	A.M. – Give all recipients 2 cc GnRH; A.M. and P.M. – Heat detect and record heats	
Tuesday	15	A.M. – Embryo Transfer	

* Gonadotropin Releasing Hormone
** Prostaglandin

TIPS FOR SUCCESS:

- Utilize recipient cows that are 60-days postpartum, or heifers that have reached puberty.
- Give pre-breeding shots 30 to 45 days prior to starting synchronization protocol.
- Avoid large changes in nutrition 30 days pre- and 45 days post-embryo transfer.
- Recipient cows should be transported to their home environment as soon as possible after embryo transfer, to minimize stress.
- Pregnancy checks can occur as early as 28 days post transfer and should be completed before 100 days of gestation, to accurately age the fetus and to set the projected calving date.