Preparing Cattle for Advance Reproductive Procedures

Embryo transfer and In Vitro Fertilization are powerful tools for extending the impact of superior cattle genetics. Based on decades of experience with advanced reproductive technologies, Trans Ova Genetics has complied the following recommendations to ensure a successful program.

Make Heat Detection a Priority

Heat detection is the most controllable factor in a producer’s cost per pregnancy. Proper detection is more vital for an ET program than traditional AI programs.

Acceptable heat detection methods:
- Avoid solely relying on palpation or ultrasound to identify qualified recipients, a corpus luteum (CL) is present from day 5 – 18 of the heat cycle, as the day of heat cannot be accurately determined.
- Visual detection
  - Watch for 15 minutes minimum; both morning and evening.
  - Walk calmly among recipients to encourage activity.
  - Record whether recipient stood to be mounted or was riding only.
  - Heat date is first detection period that the recipient stood to be mounted.
- Activity monitoring system
  - Heat date is considered period of highest (peak) activity
- Timed embryo transfer
  - Industry recommended synchronization protocol that does not require heat detection
  - Heat date is the time that timed A.I. is recommended
- While we highly recommend heat detection, never rely solely on heat detection aids such as chalk, paint, or patches, as they may yield a high percentage of false heats.
NEEDLES AND INJECTIONS

- Follow your Trans Ova Genetics schedule that is set up for the donor and recipient.
- Use a clean 1 ½ inch, 18 or 20-gauge needle when administering intramuscular hormone injections.
- Give hormone injections intramuscularly (unless otherwise noted) in the neck.
- Do not give hormone injections successively in the same location.
- Give injections every 12 hours.

NUTRITION

- Make sure donor cattle and recipient cattle are maintaining or gaining (preferred) good body condition; a body condition score (BCS) of 4 to 6 is recommended for beef and 3 to 4 for dairy.
- Discuss a suitable nutrition plan with a veterinarian or nutritionist.

VACCINATIONS

- Work with a veterinarian to discuss the best vaccination options for your situation and geography.
- Consider reproductive/respiratory virals such as IBR, BVD (types I and II), BRSV and P13; a 5-way Lepto; a 7-way Clostridial; and a parasiticide in the vaccination process.
- Ideally, donor and recipient cattle should not be treated with antibiotics or steroids during the superovulation setup process. Please consult with a veterinarian if antibiotics are needed while a donor is set up for superovulation or to be implanted.
- Do not administer modified-live vaccines within 30 days of the target day of estrus.

FACILITIES

- Use a heavy-duty squeeze chute that is protected from the sun and outside elements for transfers and any donor collection procedure.
- When doing frozen embryo transfers, a covered area next to or near the chute should be available for the embryologist to thaw embryos. If the chute is in an open area, there should be space nearby for the Trans Ova vehicle to park. Head locks in a dairy setting are also acceptable for transferring embryos.
- If you plan on freezing any IVF embryos, please let us know ahead of time. This allows embryos to remain in the lab and is beneficial for efficiency and embryo quality and handling.
- If the situation calls for freezing fresh embryos on farm, we require a location that has ample electricity, temperature controlled and is free of dust and sunlight.
WORKING WITH A CO-OP HERD?

- Every client must have a signed Client Service Agreement (CSA) and Trans Ova account prior to doing the work. All contact information must be provided so we have accurate information for communication and billing purposes. Every client must have a valid e-mail address.
- We prefer that client’s embryos are sent to a Trans Ova center instead of to the co-op herd. This makes our paperwork, planning, and organization more efficient and aids in a successful implant day.
- For additional information, contact your client service representative.

WHAT TO EXPECT FROM THE EMBRYOLOGIST?

- An embryologist will be in contact at least a week prior to the trip to arrange the trip details.
- Requests for embryos to be brought on farm must be made at least a week before the trip.

DAY OF TRANSFERS

- Please have a Client Priority List with the number of implants per client and matings ready for the embryologist.
- Copies of the day’s transfers and procedures will be sent via e-mail within one week of the trip.
- Optimal time for movement of recipients is 1-2 days after implantation. Movement between day 10 and 30 should be avoided if possible. If movement is necessary it should occur in cooler periods of the day and in low stress environments. Pregnancy should be established after day 40.
QUESTIONS?
Contact a Trans Ova Client Service Representative:

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