



DECEMBER 2023 DAIRY NEWSLETTER

We are regularly asked “how are flushes going?” – So, here’s a summary of 735 conventional flushes performed by the KVC ET department in 2023.

Analysis of 735 conventional flushes	Dairy	Beef
% of the 735 Collections	86%	14%
Conventional Semen Used	38%	89%
Sexed Semen Used	62%	11%
Embryos Produced using Conventional Semen	7.7	10
Embryos Produced using Sexed Semen	6.1	7.8
OVERALL AVERAGE	7.12	
Non-Flush Rate (no CL or 1 CI on flush day)*	5%	
*Industry avg of non-flush rate	15-20%	

TRENDS

- Trend to using more sexed semen in dairy flushes
- As semen sexing technology continues to advance (both in accuracy of results and quality of the product), the fertilization rate of the recovered embryos continues to rise (less unfertilized embryos being recovered on flush day).
- Alteration in timing of AI when using sexed semen has been adopted which has also positively impacted the fertilization rate of embryos
- Beef flushes are lagging behind in the adoption of sexed semen for two main reasons:
 - There is a market for bull calves
 - Less beef bulls have sexed semen availability
- Just 10 years ago, we were biopsying 12.5% of recovered embryos to determine the sex of the embryo. Today, with the adoption of more sexed semen being used for ET, we biopsy zero!
- Trend to utilizing the benefits of OPU/IVF
 - 80% of embryos produced in the USA in 2022 were made via IVF (*in vitro*) versus ET (*in vivo*).
- Advantages of OPU/IVF over conventional ET:
 - Rapid replication of genetics (can be performed every 2 weeks)
 - Can collect oocytes from pregnant cows (continue to make embryos/calves even while the donor is pregnant).
 - This allows a donor to continue to stay in production and calve annually
 - Less semen is required (usually just one dose of semen required per cycle)
 - Can collect oocytes from pre-pubertal heifers, problem breeders, donors with uterine adhesions, and in some cases from donors that are poor responders to conventional ET.
 - Ability to fertilize oocytes to different sires from a single oocyte collection with a known mating outcome for each embryo.
- We have also experienced a significant uptake in the number of OPU/IVF cycles being performed

REMINDERS

BEEF SEMEN

- Take advantage of the high prices for beef-cross calves from the animals you don't want replacement from by using 1 of the 3 beef semen products we offer:
 - Black Angus semen (\$10/straw),
 - Black Simmental semen (\$10/straw), or
 - "Black Boost" semen (a combination of 2 Black Angus and 1 Black Simmental sires) (\$15/straw).
 - Volume pricing available on 50 and 100+ doses.
 - Reminder that these straws have 40 million sperm/dose (double what most AI companies offer)

"PROBLEM BREEDER" BEEF EMBRYOS

- We also have beef embryos available for those "problem breeders" (\$100/embryo) that you're hoping to keep around longer.
 - PROTOCOL:
 - AI the animal at the normal timing and administer an injection of GnRH at AI
 - Call the clinic once the animal is bred to schedule an implant and make a note to request a beef embryo
 - Implant occurs 7 days after AI by one of our trained and experienced veterinarians