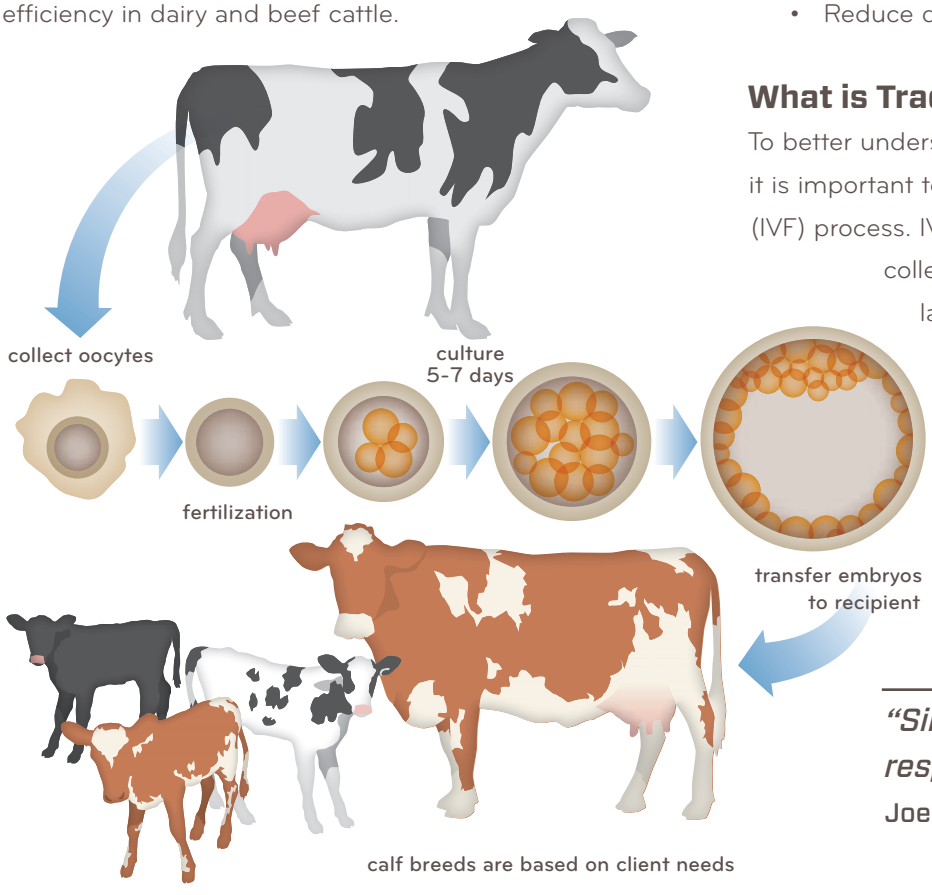
Simplot
ANIMAL SCIENCES

Innovation for **Your Success**

Simplot's Animal Sciences team uses an innovative approach to provide advanced reproductive solutions to beef and dairy cattle producers to improve efficiency, productivity, and profitability in a changing market.

Combining extensive experience in agriculture with the latest in reproductive solutions, Simplot developed SimVitro® embryos to improve genetics and reproductive efficiency in dairy and beef cattle.



SimVitro embryos have a wide variety of applications, offering a versatile and economic solution for beef and dairy cattle producers:

- Change the economic value of the calf
- Improve pregnancy rates in heat stressed and repeat breeder cattle
- Change herd genetics in just one generation
- Provide a breeding solution for crossbred cows
- Reduce dystocia due to birth weight in heifers

What is Traditional In Vitro Fertilization?

To better understand how SimVitro embryos can help you, it is important to be familiar with the In Vitro Fertilization (IVF) process. IVF is the method of fertilizing oocytes collected from donor cows with semen in a laboratory setting. Typically oocytes are collected from donor cows using ovum pick-up on cows in production. The collected oocytes are then fertilized with superior semen in the laboratory. This process enables embryo production that had previously not been possible.

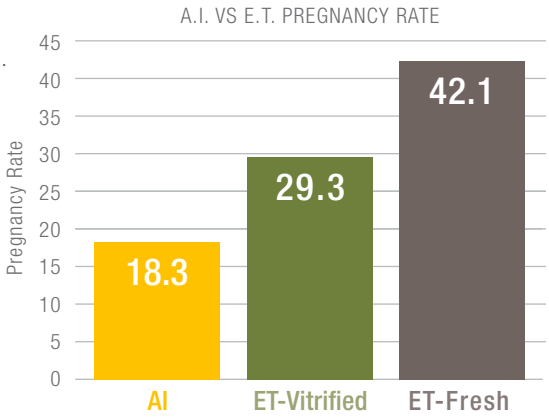
"SimVitro® embryos give me a tool to respond to the changing market."
Joe Stewart, Owner, Stewart Farms

What makes SimVitro embryos unique?

By grouping all oocytes from one breed together for fertilization, we are able to produce and freeze a large volume of embryos. SimVitro embryos are less expensive and easier to use compared to traditional IVF embryos.

Third-party research

Research has shown that embryos produce higher pregnancy rates when transferred to heat-stressed cows (see graph).



Stewart et al. J. Dairy Sci. 2011, 94: 3437-3445

Valuable embryos produce valuable calves

Using our proprietary approach we are able to produce a variety of SimVitro embryos, including Jersey, Holstein and beef.

Which breed of calves will provide the most value for your operation?

SimVitro embryos are less expensive and easier to use compared to traditional IVF embryos.

Simplot
ANIMAL SCIENCES

animalsciences@simplot.com
www.simplot.com/animalsciences

Change herd genetics

Our innovative method provides a diverse multitude of embryos, allowing producers to transition to different breeds more quickly than previously possible. SimVitro embryos can be used to transition from Holstein to Jersey cows in just one generation. With Artificial Insemination (AI), it would take 5 generations to produce Jersey cows that were only 1/32 Holstein.

Frequently Asked Questions

What genetics are available; breed and sire?

Currently, embryos are produced from three breeds using superior bulls; Jersey, Holstein, and beef. Contact a representative to see what is available or to make a request.

What pregnancy rates can I expect?

Pregnancy rates may vary based on farm management and recipients. We expect SimVitro embryos to achieve rates similar to A.I. in heifers. Heat stressed and repeat breeder cows should see an improvement in pregnancy rate over A.I.

When can I use SimVitro embryos?

SimVitro embryos can be used seasonally to improve reproductive efficiency of cattle during heat stress, and throughout the year in repeat breeder cattle. They can also be used to change the value of the calf crop (e.g., a Holstein cow giving birth to a beef calf).

Isn't IVF expensive?

Yes. Traditionally, the use of in-vitro produced embryos was not cost effective, except for cattle of elite genetics. The non-traditional use of SimVitro embryos, coupled with our innovative approach, provides high-quality embryos at affordable prices.

What kind of extra labor is involved?

Recipient cattle are prepared in a manner that is similar to A.I. Instead of breeding after estrus, embryos are transferred 7-8 days later.

Who should transfer the embryos?

Embryos can be transferred by a trained veterinarian or technician.