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University of Minnesota

College of Veterinary Medicine

VETERINARY CONTINUING EDUCATION

ST. PAUL, MINNESOTA
UNITED STATES OF MINNESOTA
decisive™ Advanced Gender Selection Technology
Monsanto Company, St. Louis, MO

decisive™ semen for advanced gender selection will be a new A.I. product. decisive™ semen is a new technology that will increase the probability for an offspring of either heifer calves or bull calves according to the producer's preference. decisive™ will give dairy producers the ability to generate a greater ratio of replacement heifers. For beef producers, decisive™ will offer the opportunity to produce a greater proportion of offspring with desirable maternal or terminal traits.

Because decisive™ will enable the reliable and consistent delivery of high-quality semen selected for gender, this new product takes an element of reproductive management once left to chance and places it in the producer's control. Ultimately, decisive™ semen for advanced gender selection will expand the range of options available to dairy and beef producers to improve herd quality.

The decisive™ Process

decisive™ is semen produced using an advanced gender selection technology which has the capability to sort and segregate sperm cells based on the desired gender preferred by dairy and beef producers. decisive™ overcomes the historical limitations of flow cytometry to allow live cell sorting and selection on a rapid, highly efficient and commercially feasible scale. The production process for decisive™ identifies and selects healthy sperm cells with the desired X or Y chromosome thereby resulting in a dose that produces predominantly either male or female offspring based upon the producer's choice.

decisive™ Features and Benefits

At commercialization, decisive™ will deliver on the promised benefits of sexed semen for the dairy and beef industries by combining five key components essential to the success of breeding programs:

1. decisive™ will deliver the desired gender you select for herd improvement with 85% probability.
2. decisive™ overall reproductive performance will be as effective as conventional AI
3. decisive™ is produced using the first scalable sorting process designed to expand to meet producer needs
4. decisive™ will fit into AI programs without special requirement
5. decisive™ will provide high-quality semen from proven sires for genetic merit

decisive™ Product Evolution

Initially, decisive™ semen will be offered in female gender. The technology is able to select gender for either male or female offspring. Producer demand will ultimately determine the relative amount of decisive™ semen that will be available to produce male or female calves. decisive™ semen will be available from participating commercial A.I. studs' upper tier of proven sires for genetic merit.

Monsanto is committed to offering decisive™ as a high quality product that meets its performance claims. decisive™ has been tested in several proof of concept studies. We will continue to increase our performance dataset through commercial field trials involving thousands of animals in support of all product claims prior to the decisive™ commercial product launch.