Predicting Male Fertility in Cattle

INVENTORS • John Parrish

WARF: P130280US01
Patent applied for.

The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a method for assessing the fertility of cattle sperm samples based on the intensity of DNA staining.

OVERVIEW

An estimated 30 million doses of cattle semen are sold for artificial insemination every year. A simple and reliable test for predicting the fertility of these samples has long been needed.

Recently it was discovered that physical differences between sperm heads can indicate subtle DNA differences as well. This research could provide a new way to test male fertility.

THE INVENTION

A UW–Madison researcher has developed a method for predicting whether a sperm sample will have high or low fertility based on average sperm head brightness. Generally, samples that exhibit brighter DNA staining have lower fertility.

In the process, a fresh or frozen sample is stained with DNA-binding fluorescent dye and imaged with a microscope. The brightness of the sperm head is averaged and compared with samples of known fertility.

APPLICATIONS

• Kits for assessing sperm fertility
• Commercial animal breeding
• Improving success rates of artificial insemination

KEY BENEFITS

• Method is straightforward and effective.
ADDITIONAL INFORMATION

Related Technologies
WARF reference number P120282US02 describes genetic markers associated with improved fertility in male cattle.

Tech Fields
Agriculture - Animal biotech
Veterinary - Animal reproduction

CONTACT INFORMATION

For current licensing status, please contact Emily Bauer at emily@warf.org or (608) 262-8638.