


# Determining Whether She is (or isn't) a Freemartin

**FREEMARTINISM IS DEFINED** as a sterile female bovine calf born twin with a male. Approximately 92% of females born co-twin to a male are freemartins or a non-breeder. If there's blood transfer between placentas, the H-Y antigen also starts affecting the female, causing defects in her reproductive tract. As a result, the female's reproductive system does not properly develop due to the exposure to the twin male's blood and hormones. In the remaining 8% of twin females that are fertile, blood exchange did not occur. Research shows that one in 13 female calves born twin to a male are in fact normal and can reproduce.

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Applications for Registry for females born twin to a male should be submitted to the Association within three months of age to be date stamped in order to avoid late fees. If, and when the female is confirmed pregnant, forward the application for registry to the office along with a statement to this effect.

The other alternative is to conduct a DNA freemartin test at a cost of \$35. If a producer wishes to proceed with a freemartin determination test, note this on the animal's application for registry. A test kit and corresponding directions will be provided. Test results are reported either positive or negative for the detection of male DNA. A negative result will allow the animal to be eligible for registration.

The freemartin predictability test samples are sent to GenServe Laboratories, where the test related to freemartinism is conducted. This is a predictive test designed to detect the presence of male DNA in the blood of a female calf. To learn more about the test contact Holstein Canada's Customer Service department toll free at 1-855-756-8300 or e-mail [CustomerService@holstein.ca](mailto:CustomerService@holstein.ca). 

## WHERE DOES THE TERM 'FREEMARTIN' COME FROM?

The term freemartin is said to have originated in England as it referred to a heifer that was not pregnant after the summer breeding season. She was therefore "free" for fattening and slaughter at "Martinmas" — a fall festival in honour of St. Martin."

*The above statement was taken from a 2004 article written by Jeff Gragnet, DVM, a vet in Qualicum Beach, B.C.*

## CHANGE IN US SYSTEM

**AS CANADA EXPERIENCED** in the mid-90s, the calculation of genetic and genomic evaluations in the US is being privatized, effective March 2013. This affects availability and pricing of US genomic values for animals owned and genotyped in Canada. The organization now responsible for the service in the US, known as the *Council on Dairy Cattle Breeding*, publicly announced their new cost structure on March 22, 2013. Holstein Canada is working closely with US officials to assure a smooth transition as further information regarding the implementation of this new service becomes available.

### THE FACTS KNOWN AS THIS TIME:

- In order to request US genomic values for Canadian-owned animals, genomic samples must be submitted through Holstein Canada's GenoTest service.
- Until August 2013, clients who already paid for an annual "US Genomic Value Subscription" at Holstein Canada will continue to receive US genomic values for animals in their ownership.
- Until August 2013, requests for individual animal requests for US genomic values cannot be accommodated.

As soon as complete information becomes available, Holstein Canada will communicate its new pricing for the provision of US genomic values to members. 