

Diagnose Freemartins Early

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In these tough times, it is prudent to cut expenses in the right places. One of those "right places", although small, is to identify as early as possible which heifers born twin to a bull are sterile and not spend money raising these freemartin heifers.

About 90 to 95 percent of heifers born twin to a bull are sterile. Even among single births, a few heifers will be sterile as a consequence of the death of the male twin early in the pregnancy. The joining of the blood circulations of the two fetuses early in pregnancy allows testosterone from the male fetus to alter development of the female reproductive tract. Most heifers born twin to a bull have a vulva and vestibule, but the vagina, cervix, uterus and ovaries are underdeveloped.

Measuring the length of the vagina in the young calf is one way to get an idea if a heifer born twin to a bull is a freemartin. In normal Holstein calves less than one month of age, the vagina is about 5 inches (13 cm) long, but in freemartin Holstein calves it is 2 to 3.25 inches (5 to 8 cm) long. In one study all Holstein heifers less than one month of age with a vaginal length of 2 3/4 inches (7 centimeters) or less were freemartins. The measurement can be made with the lubricated round end of a vacutainer or a commercially available curved plastic probe. Precaution should be taken to make sure one is measuring the distance to the front end of the vagina and not the distance to the hymen in a normal heifer.

A probe can be inserted beyond 7 centimeters in about 10 percent of the Holstein heifers born twin to a bull up to one month of age. About half of the heifers in this category are normal. These heifers can be positively identified by cytogenetic testing or raised until a diagnosis can be done by ultrasound or palpation.