



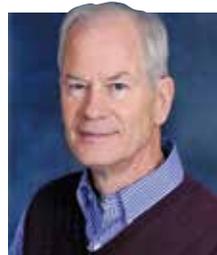
**HEIFERS ARE AT A GREATER RISK** of stillbirth than mature cows, but it's avoidable in both cases.

## Get a grip on stillbirths

Although there are good data on what factors lead to stillbirths, we haven't been able to eliminate them.

by A.F. Kertz

**T**HE issue of calves born dead (stillbirths) has been lurking in my mind for years and came to the forefront in a recent breakfast discussion with a veterinary professor who had similar thoughts and concerns. In a research herd with which I worked for years, death losses of preweaned calves born alive aver-



### KERTZ

The author is the principal in ANDHIL LLC, a St. Louis-based consulting firm.

aged about 2.5 percent, but calves born dead was about three times that.

Why?

I am not sure, but some factors I've considered were: calves born during the night without attention, genetics, calving difficulty, lactation number, male versus female calves, twins, and so forth. All of these have been found to be factors in various studies. Generally, when we speak of calves born dead, it includes calves born alive that die within 24 hours of birth. Let's look at what some studies tell us about this issue.

### Reduce risk factors

A 2001 study assessed 666,341 birth records from 1985 to 1996 from the then Mid-States Dairy Records Processing Center (DHI). Stillbirths accounted for double the number of calvings in first-calf heifers (11.1 percent) compared to older cows (5.7 percent).

Dystocia occurred in 28.7 percent of first-calf heifer calvings, but only 10.7 percent for cows. The heifers recorded nearly three times the dystocia rate of older cows. The rate of calves born dead climbed when delivery assistance was necessary and from year to year. Stillbirths were high in the summer ver-

sus winter and for bull versus heifer calves. Twins were not included in this study, but they would typically be expected to result in more calves born dead.

In a 2004 study, three California herds had 10 to 20 percent stillbirths. A genetic component was extracted in a 2006 study finding stillbirths rose 0.25 percent and 0.20 percent for bull and heifer calves, respectively, for each 1 percent elevation in the inbreeding coefficient for first-calf heifers (according to Bennet Casell in a December 2006 *Hoard's Dairyman* article, pages 826 and 827, "Sire selection for stillbirths has been available since 2005").

A very extensive study reported in 2007 used three 1,000- to 5,000-cow herds in Colorado with 3,544 calves born from October 2001 to November 2002. Calving assistance was higher (50 percent) for first-calf heifers, bull calves, and twins. Calves born with dystocia scores of 2 and 3 were 2.3 and 15.4 times more likely to be stillborn than calves born unassisted. They also had more respiratory, digestive, and other health problems.

Overall, stillbirth incidence was 6.3 percent for heifers versus 10 percent for bull calves. Stillbirths were 12.6 percent for first-calf heifers versus 6.1 percent for older cows.

A key comment from that study was, "Education of farm personnel should be targeted at minimizing dystocia impacts with appropriate delivery methods, identifying compromised calves, administering fluids and oxygen to calves with acidosis, warming chilled calves, and delivering high-quality colostrum immediately after birth. Standard operating procedures on dairies should be to treat every calf that was exposed to dystocia as a compromised calf."

Maybe not incidentally, several veterinarians have told me they think feeding cows low DCAD (Dietary Cation Anion Difference) diets before calving may predispose those calves to metabolic acidosis and stillbirth. Further comments from this study noted that general causes of stillbirths were related to

fetal-maternal size mismatch, fetal mal-presentation, or maternal-related causes. And there was also a need for greater calving pen observations with appropriate intervention.

### Know when to pull

When severe dystocia occurs, there is major trauma, which often leads to asphyxia . . . a condition when the body is deprived of oxygen. That cascades into a host of issues. And since dystocia events account for about 50 percent of all calf deaths, employees need to be educated on minimizing dystocia with proper intervention, optimizing care for compromised calves, and remembering that every dystocia calf is already compromised!

A major part of education is to understand and to be able to recognize the three stages of labor because if calves are pulled in early Stage 1, pulling creates problems. This issue was imbedded in my mind by a situation I encountered about 10 years ago. A calf ranch asked me to visit two clients who had similar dairy operations and were brothers, too. But calves from one dairy did not do well in his calf ranch operation.

As it turned out, I was able to visit only one dairy — the good operation. Near the end of the visit, I asked the calf manager if she knew why the other dairy's calves did not do well. She replied because they pull most of the calves! That leads to another comment I often have heard — we are very experienced at pulling calves. But do you know when, when not, and how best to pull calves?

In a March 10, 2013, *Hoard's Dairyman* article, Jeff Stevenson advocated using a 5-point calving difficulty scoring system. Here is the simple scoring system he suggested: 1-no problem, 2-slight difficulty, 3-needed assistance, 4-considerable force, 5-extreme difficulty.

Another study reported in 2007 was with 13,608 calves over a year period from six dairies in New York and one in the Midwest. The average incidence of stillbirths was 6.6 percent with 11 percent for first-calf heifers and 4 percent for older cows.

The negative impact of stillbirths on the cow was most noticeable in the lengthened conception interval of 88 days. These dams also had 24 percent lower pregnancy rate, and the impact on milk production was not indicated. But in this study, stillbirth incidence was independent of calving difficulty.

### Records are critical

In the 2007 NAHMS (National Animal Health Monitoring System) study, calves born dead were found to be 6.5 percent and in the 2014 NAHMS study to be 5.6 percent. Given the greater percentages found in detailed studies cited in this article, I suspect the NAHMS percentages are lower than reality. Why? Because I think too many dairies do not accurately and consistently record calves born dead.

I think it simply is not much of a priority on many dairies to do so. And I suspect many of the calves born dead occur on the graveyard shifts — nights and weekends. Maybe with the use of sexed semen and so many heifer calves around, calves born dead are not as much of an issue — unless it is a calf you really wanted her genetics in your herd. Perhaps someone can show my suspicions to be unfounded. In the meantime, how well do you record, monitor, and manage calves born dead on your operation? 🐄