A Good Heifer Deserves a Good Bull

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Introduction

If you have spent the time to select and raise your replacement females, then you have invested a considerable amount of money. If the heifer have been managed so that they are able to conceive early in their first breeding season, then you have done an excellent job in management which has resulted in a female that well have positive, long-term effects on herd productivity and profitability. Your next decision involves choosing the right kind of bull to use on the heifers. A bad decision, using the wrong kind of bull, can result in severe problems that will cause production and financial loss at first calving and potentially, throughout the life of the females.

What Are the Characteristics of a Good Bull for Heifers?

Good bulls for heifers must have at least two very important characteristics that will save you time and money when the heifers finally calve. Those characteristics are that the bull has below breed average EPD for birth weight (BW) and high calving ease ratings (CED). These two specifications in the bull will help ensure that dystocia (calving problems) due to heavy birth weights in the calves are dramatically reduced, or potentially eliminated. Calving problems are expensive and have near-term, and sometimes long-term, detrimental effects on subsequent reproductive performance. Heifers that experience difficulty delivery of a heavy calf will require assistance. Some may lose their calf (dead at birth, or within 24 hours of birth) due to the stress of delivery, and in worst cases, the dam may die too. Those that survive may require follow-up therapy due to potential paralysis associated with pelvic nerve injury and
other complications such as infections, which require antibiotic therapy. Those are the near-term problems associated with difficult calving.

The long-term effects may last from as little as a few months to as long as a lifetime. Research has shown that even mild calving problems can delay the heifer’s ability to rebreed. Severe problems at delivery may cause enough tissue damage in the reproductive tract so that the heifer is rendered sterile.

Research show that in herds where the incidence of calving problems ranged from **25% to 33%**, the cost (professional care, follow-up therapy, death loss) of assistance at delivery averaged over **$200** for every heifer assisted. In these herds, that translates to a cost of $55 to $65 per replacement female in the herd. That additional cost of calving problems could mean the difference between the chance of getting a positive or negative returned from calves born to these heifers. The cost reported in these herds did not account for any potential future losses associated with failure to rebreed and delayed rebreeding in heifers that had calving problems. **The upshot is that calving ease bulls are a must for breeding in replacement heifers.**

One other characteristic in the bull is important and can “ice the cake” in a herd of replacement females. **Choose a bull that not only has calving ease, but also has the genetics for above average growth rate.** Some people believe that such a bull is a phantom, and that belief is based on the premise that birth weight is genetically correlated to growth rate. Even though this relationship is true, many breeds have begun to select simultaneously for low birth weight and high growth rate, and the success has been surprising. There are a number of such bulls among some breeds, and breeders have given them the title of “**curve benders**” which implies that these bulls do not fit the old mold in which it is believed that high growth rate can not be achieved by using low birth weight, weaning/yearling weights and calving ease ratings. Informal observations of two sets of calves from such bulls used on replacement heifers show that their weaning weights ranged from 510 to 550 pounds. Not bad for a calf born to a replacement heifer!
Can Calving Problems in Heifers Be Eliminated?

It should be remembered that not all calving problems in heifers are related strictly to birth weight in the offspring. Obviously, some calves that are born in breech position or with other improper posture problems are going to require assistance. However, most calving problems are the result of heavy birth weight in the calf. These problems are compounded when the heifer is not properly developed and managed to reach at least 85% of her expected mature weight by the time she calves. Such heifers are more structurally developed and will have fewer problems than those that calf at a smaller percentage of their expected mature weight.

Can calving problems due to heavy birth weight be eliminated? Research in five Texas herds of replacement heifers suggest that it is possible. **Table 1 shows that the use of calving ease bulls on heifers resulted in a complete elimination of any calving problems.** Across all herds, a total of 10 different calving ease bulls were used. It should also be noted that all heifers in these herds were bred to calve at 2 years of age. Herds 1 and 2 were involved in a three year study. Non-calving ease bulls were used in the first year for both herds and the percent of heifers having problems was 25% and 22%. In the second and third years for these herds, only calving ease bulls were used. In those two years, no calving problems occurred. Herds 3 and 4 used only calving ease bulls on heifers, and for 12 years in herd 3 and for 4 years in herd 4, none of the heifers had any calving problems. Likewise, in herd 5, no calving problems occurred. **Thus, accomplishing a dramatic reduction in calving problems requires two things – a properly developed heifer and mating her to a calving ease bull.**

Heifers are Your Future

Producers often forget the impact of heifers on future production, and tend to concentrate only on what may happen from the time they are weaned and developed for first breeding. Even though it is rewarding to see a group of heifers perform as expected, the management required to achieve such performance can be expensive. **Don’t make the mistake of losing some of your investment by choosing the wrong kind of bull to mate with these valuable females.**
Table 1. Effect of Using Calving-Ease Bulls on Percent of Heifers Experiencing Dystocia  
(All heifers calved first at 2 years of age)

<table>
<thead>
<tr>
<th>Bull Type</th>
<th>Calving Ease</th>
<th>Non-calving ease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herd 1 (75 head)</td>
<td>0%</td>
<td>25%</td>
</tr>
<tr>
<td>Herd 2 (75 head)</td>
<td>0%</td>
<td>33%</td>
</tr>
<tr>
<td>Herd 3 (60 head)</td>
<td>0%</td>
<td>—</td>
</tr>
<tr>
<td>Herd 4 (88 head)</td>
<td>0%</td>
<td>—</td>
</tr>
<tr>
<td>Herd 5 (34 head)</td>
<td>0%</td>
<td>—</td>
</tr>
</tbody>
</table>

Herds 1 and 2 (3 year study)
Herd 3 (12 year study)
Herd 4 (4 year study)
Herd 5 (1 year study)

Across all the heifers at these 5 locations, a total of 10 different calving ease bulls were used.