Pelvic area, calving ease and rebreeding in first calf heifers (1979)

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Pelvic Area, Calving Ease and
Rebreeding in First Calf Heifers

R. R. Schalles, A. T. Fleck, L. R. Corah,
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Summary

Pelvic area had little influence on the number or severity of calving problems after size and condition of two-year-old first-calf heifers, sex and weight of their calf, and genetic background of the heifer and her calf were accounted for. Little difference in rebreeding was attributed to calving difficulty, although heifers that had Caesarean deliveries rebred about two weeks later than those giving natural birth.

Introduction

The recent selection for larger, faster growing cattle has increased birth weights and dystocia. We looked at the relationship between pelvic area, dystocia, and rebreeding after heifers calved.

Procedures

Data were collected on Polled Hereford heifers for three years. All sound heifers were bred as yearlings and rebred as two-year-olds in a 60-day breeding season. Horizontal and vertical pelvic measurements, taken intrarectally with a Rice pelvimeter before the start of calving season, were multiplied to estimate pelvic area. Heifers were observed at least every two hours during calving and assistance was given as the herdsman determined. Caesarean deliveries were by the KSU Veterinary Medicine staff.

Results and Discussion

Pelvic area had little influence on calving difficulty (Table 5.1) when corrections were made for heifer weight and condition, sex and weight of her calf, and sires of the heifer and her calf. Heifers with medium size pelvic areas required more Caesarean deliveries than those with either large or small pelvic areas. Requiring assistance at calving had little relationship to rebreeding (Table 5.2), although heifers that had Caesarean deliveries conceived about two weeks later than heifers giving natural birth.

Table 5.1. Effect of pelvic area on calving ease.[a]

Precalving pelvic area	Small (< 230 sq cm)	Medium (230 - 265 sq cm)	Large (> 265 sq cm)
Number of heifers	20	43	18
No assistance, %	20	16	22
Difficult assistance, %	65	49	56
Caesarian deliveries, %	15	35	22

[a]Sire of heifer, sire of calf, sex of calf, precalving weight, calf birth weight, and precalving weight-height ratio were included in model to obtain least squares means.

[b]< = less than; > = more than.

Table 5.2. Effect of calving difficulty on rebreeding performance.[a]

	No assistance	Difficult assistance	Caesarian delivery
Number of heifers	46	49	30
Conceived 1st service, %	33	55	43
Conceived final [b], %	67	84	73
Conception date	June 10	June 10	June 14
Calving to conception (days)	79	75	92

[a]Means are adjusted for differences in pre-breeding gains.
[b]Final conception for a 60 day breeding season.