

Reproductive Development and Performance of Hereford Heifers Calving at 24 and 30 Months of Age

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There are several major problems associated with calving heifers at 24 months of age which can be greatly reduced by delaying calving until the heifers are 36 months of age. However, it is very difficult, on an economic basis, to justify delaying the onset of a heifer's productive life by a year. There is the possibility that calving at 30 months of age would reduce the problems associated with earlier calving and also be economically feasible. There has been only a very limited amount of research conducted to date that has compared calving at 30 months of age with calving at 24 months from the standpoint of reproductive performance and economic returns.

This study was initiated at the Southwestern Livestock and Forage Research Station, El Reno, (Fort Reno) in the fall of 1979 and will continue until December 31, 1983. The objectives are: 1) to determine the effects of a low and moderate level of winter supplemental feeding on the growth, development and reproductive performance of heifers calving in the spring at 30 months of age; and 2) to compare the performance of heifers calving at 30 months of age with comparable heifers fed at a high level of winter supplemental feeding and calving in the spring at 24 months of age.

The heifers being utilized in this study are produced in experimental cow herds at the Lake Carl Blackwell Range Area. In these herds, cows of comparable breeding are calved in both the spring and fall and are bred to the same bulls in each season. This will permit a comparison of heifers of similar breeding calving in the same season at two different ages.

The total number of heifers that are available to be placed on experiment in a given year is limited. Therefore, in order to obtain sufficient numbers of heifers for the results to be meaningful, the study will consist of three replications. Three groups of weaner and yearling heifers will be obtained in the falls of 1979, 1980 and 1981. They will remain on trial until they wean their first calf. The group that was obtained in 1979 will calve starting in late February, 1981. The group obtained last fall will be bred for their first calf during a 60-day breeding season May 1-July 1, 1981. The third replicate will be started in the fall of 1981 and completed in fall of 1983, at which time the results for all three replicates will be analyzed and published.