

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

E. J. Turman, R. P. Wettemann
and K. S. Lusby

Two major problems are associated with calving heifers at 24 months of age: (1) the large number of heifers requiring assistance and (2) poor rebreeding performance. Research has shown that these problems 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. Calving at 30 months of age may reduce the problems associated with earlier calving and also be economically feasible, but there has been very little research conducted to date on calving at this age.

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 compare the reproductive performance of heifers calving at 30 months of age with heifers fed at a high level of winter supplemental feeding of protein and energy and calving in the spring at 24 months of age; and 2) 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. Reproductive performance traits being measured include breeding performance as heifers, incidence and magnitude of calving difficulties and rebreeding performance following their first calving.

The heifers being utilized in this study are produced in experimental cow herds at the Lake Carl Blackwell Range Area. 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 were obtained in the falls of 1979, 1980 and 1981. They will remain in the study until they wean their first calf. When the third replicate is completed in the fall of 1983, the results for all three replicates will be combined, analyzed and published.

The heifers of replicate 1 calved during spring, 1981, weaned their calves last fall, thus completing replicate 1. Heifers of replicate 2, obtained in the fall of 1980, were bred during a 60-day period beginning May 5, 1981, and will calve in spring, 1982. Heifers of replicate 3 were placed on trail in November, 1981, and will be bred in spring, 1982.