

## SUMMARY AND CONCLUSIONS

A study was conducted at the Everglades Experiment Station, Belle Glade, Florida, to determine the effect of certain environmental factors on weaning weights of calves. Weaning data were available on 933 calves covering the period from 1950 through 1959. Environmental factors studied were year of birth, age of dam, sex, month or season of birth, and lactation status. Estimates of these factors which might influence 205-day weights were obtained by least squares procedures. The study included calves of Angus, Brahman, Devon, Brahman-Angus, and Brahman-Devon breeding.

The variability of year effect covered a range of 145 pounds and was a highly significant factor. Bull calves were 11 pounds heavier than steer calves and steer calves 20 pounds heavier than heifers at 205 days of age. Weaning weights were heaviest from cows 6 to 11 years of age. Calves produced from cows younger than 6 and older than 11 years were lighter at weaning.

Month or season of birth showed a significant influence on weaning weight. Calves born in December through June were 7 pounds heavier than November calves and 18 pounds heavier than calves born in July through October. Lactation status of dam had no significant effect on 205-day weaning weight.

The results of this study indicate that factors other than breeding have a significant influence on weaning weights. Beef cattle producers should become aware of these environmental factors and their effect on the production of their cattle.

## ACKNOWLEDGMENTS

The authors appreciate and acknowledge the service of many others in accumulating the weight records, maintaining the record books, and analyzing the data basic to this publication. Drs. H. L. Chapman, Jr., D. W. Beardsley, and others made many of the weight records. Applications of I.B.M. methods in analysis of breeding herd data were developed and used by H. V. Clum and J. M. Liddon. Also, the services of personnel in the Statistical Laboratory of the University of Florida are appreciated.

## LITERATURE CITED

1. Brown, C. J. Influence of year and season of birth, sex, sire and age of dam on weights of beef calves at 60, 180 and 240 days of age. *J. Animal Sci.* 19:1062. 1960.