

# ENVIRONMENTAL FACTORS AFFECTING WEANING WEIGHTS OF BEEF CATTLE IN THE EVERGLADES<sup>1</sup>

J. H. MEADE, JR., R. W. KIDDER, M. KOGER AND J. R. CROCKETT<sup>2</sup>

## INTRODUCTION

Much variability is encountered in measurements which are used to evaluate beef cattle performance. This variability is due to both genetic and environmental influences. The genetic effect may be concealed by induced and natural environmental factors which could confuse the breeder and hinder selecting those animals having the greatest breeding value. The variance due to environment may constitute a large portion of the total variability and may be due to prenatal effects, sex, season of birth, year of birth, climate, nutrition, and other less recognizable influences. To properly evaluate beef cattle performance, the breeder or producer must be aware of the factors affecting beef production. A knowledge of how these factors influence performance, together with proper estimates of their magnitudes, will help the producer to evaluate more accurately the merit of his cattle.

This study presents the analysis of records from the breeding herd at the Everglades Experiment Station, Belle Glade, Florida, and shows the significance of various environmental factors which affect weaning weights. Although genetic variation is mentioned, and was included in the analysis, it is not considered in detail in this bulletin.

---

<sup>1</sup> This bulletin represents part of a dissertation presented by the senior author to the Graduate Council of the University of Florida in partial fulfillment of the requirements for the degree Doctor of Philosophy.

<sup>2</sup> Meade: Former Graduate Research Assistant, Animal Science Department, University of Florida; presently, Assistant Professor, Department of Experimental Statistics, North Carolina State College.

Kidder: Animal Husbandman, Everglades Experiment Station.

Koger: Animal Geneticist, Animal Science Department, University of Florida.

Crockett: Assistant Animal Geneticist, Animal Science Department, University of Florida.