SUMMARY
The objectives of the study were to estimate the fraction additive genetic variance explained by the Brahman fraction in Angus-Brahman multibreed beef cattle, and to evaluate the trends of genetic, genomic-polygenic, and polygenic EBV for carcass traits and ultrasound backfat measurements at the post-weaning (PW) and post-fattening (PF) stages. The study was conducted with 280 steers from the University of Florida at Gainesville, FL. Each steer was genotyped by the University of Florida Beef Cattle Collection and evaluated for maximal EBV and genomic EBV. The study included the evaluation of ultrasound measurements and carcass traits. The results demonstrated that the Brahman fraction has a significant impact on the EBV and genomic EBV for carcass traits and ultrasound backfat measurements.

INTRODUCTION
Red and humid climate conditions in Florida and other subtropical regions of the US have required the development of beef cattle breeds and breeds mixtures that have higher growth potential and carcass quality. The Brahman breed is known for its adaptability and hardiness, which makes it a suitable choice for Beef production in subtropical regions. Brahman cattle have been used in various crosses and breeds mixtures to improve the productivity and adaptability of local breeds. Brahman cattle have a significant impact on the EBV and genomic EBV for carcass traits and ultrasound backfat measurements. Therefore, the study aimed to evaluate the trends of genetic, genomic-polygenic, and polygenic EBV for carcass traits and ultrasound backfat measurements.

MATERIALS AND METHODS
Analysis and Data: Data were collected from calves belonging to the Angus-Brahman multibreed (ABM) herd at the University of Florida (UF) located in Gainesville, FL, USA. The herd mating plan was designed to include post-weaning (PW) and post-fattening (PF) stages. A total of 280 steers were evaluated for EBV and genomic EBV. The steers were genotyped using the Illumina BovineSNP50 BeadChip. The EBV and genomic EBV were estimated using the following models:

RESULTS AND DISCUSSIONS
Number of calves, means, and standard deviations by breed and group are shown in Table 1. Ultrasound measurements were also performed on a subset of 25 steers from each breed group (Brahman, Brahma, and ABM) to evaluate the impact of the Brahman fraction on ultrasound backfat measurements. The results demonstrated that the Brahman fraction has a significant impact on the ultrasound backfat measurements.

Table 2 shows the posterior means for additive genetic, genomic-polygenic, and polygenic EBV for carcass traits and ultrasound backfat measurements. The results demonstrated that the Brahman fraction has a significant impact on the EBV and genomic EBV for carcass traits and ultrasound backfat measurements. The Brahman fraction increased the number of calves, means, and standard deviations by breed and group, which is consistent with the results of previous studies.

REFERENCES