ASSOCIATION POLYMORPHISM CSFM50 WHITH WEIGHT GAIN IN HEREFORD BEEF CATTLE

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Molecular markers for production traits in cattle have been intensively investigated to use in marker-assisted selection program (MAS). In beef cattle, the microsatellite CSFM50 (located in the chromosome 2 (BTA2)) polymorphism had been correlated with weight gain from weaning to maturity. The Hereford herd corresponds to 4% of the total beef cattle herd in Rio Grande do Sul state. The objective of this study was to determinate the influence of microsatellite CFSM50 polymorphism on birth weight (BW), weaning weight (WW) and yearling weight (YW) in a Hereford beef cattle herd. 270 animals, born in 2001, from a commercial herd in the south region of Rio Grande do Sul were genotyped. The DNA was extracted from white blood cells. Genotype identification was done by PCR followed by resolution in A.L.F. DNA SequencerTM. Genotype effects for BW, WW and YW were studied by a model with fixed effects of genotypes, sire, month of birth, sex, nutrition treatment by least squarles method. Linear and quadratic effects of age of dam were included as covariable only for BW and WW. There were no influence of CSFM50 on BW and YW ($P>0.1$), but significant effects were observed on WW ($P=0.03$), with positive effects associated to 180/184 genotype. The analysis of the results suggest that 180bp allele can be associated with highest WW and 176bp can be associated with lower WW at this Hereford herd. Further investigation should be conducted to identify the QTL responsable for this variation.