302 Age at first calving, calving weight and productive performance of straightbred Nellore and crossbred Charolais x Nellore cows in Brazil. M. M. Alencar[1]*, J. A. L. Oliveira[2], and M. A. Almeida[3], [1]*CPPSE/EMBRAPA* [2]*UNOESTE, Sao Carlos, Brazil* [3]*Agropecuaria Silveira, Presidente Prudente, SP, Brazil.*

The objective of this study was to compare age at first calving (AFC) and cow weight at calving (CWC) of straightbred Nellore and crossbred 1/4 Charolais + 3/4 Nellore (1CHA3NEL), and 5/8 Charolais + 3/8 Nellore (5CHA3NEL) cows, and the ratios birth weight of calf/CWC (BWR) and weaning weight of calf at 270 days/CWC (WWR) of straightbred Nellore and crossbred 1CHA3NEL, 5CHA3NEL, Canchim (5/8 Charolais + 3/8 Nellore) and 7/16 Charolais + 9/16 Nellore (7CHA9NEL) calves. Analyses of variance were carried out by the least squares method, with models that included the effects of year and season of birth, and genetic group of cow for AFC; year, season, and age of cow at calving, and genetic group of cow for CWC; and year, season, and age of cow at calving, and sex and genetic group of calf for BWR and WWR. Genetic group affected significantly all traits studied. The least square means for AFC and CWC were 1073.0 ± 9.0 days and 425.4 ± 1.4 kg for the Nellore, 1043.5 ± 3.6 days and 447.4 ± 1.7 kg for the 1CHA3NEL, and 966.1 ± 5.2 days and 486.4 ± 2.7 kg for the 5CHA3NEL cows, respectively. The least square means for BWR and WWR were 66.5 ± 0.9 and 438.3 ± 6.2 g/kg for the Nellore, 69.6 ± 0.4 and 415.4 ± 2.5 g/kg for the 1CHA3NEL, 75.1 ± 0.5 and 515.9 ± 3.3 g/kg for the 5CHA3NEL, 72.6 ± 0.7 and 469.0 ± 4.9 g/kg for the Canchim, and 73.9 ± 0.8 and 501.8 ± 5.8 g/kg for the 7CHA9NEL calves, respectively. The results show that the higher the percentage of Charolais genes in the cow, the smaller its AFC, the higher its weight at calving, and the smaller the weight ratios at birth and weaning; and the higher the expected heterozygosity in the cow, the smaller its AFC, and the higher the weight ratios at birth and at weaning.

Key Words: Beef cows, Cross breeding, Productive effciency