

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

RANKING CORRELATION AMONG BREEDING VALUES OF NELORE BULLS FOR SCROTAL CIRCUMFERENCE ADJUSTED TO DIFFERENT GROWTH TRAITS

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The aim of this study was to evaluate changes in ranking according to the breeding values of Nelore young bulls for scrotal circumference adjusted to different growth traits. Data from 26,088 males born between 2002 and 2015, belonging to the historical dataset from Agropecuária Jacarezinho located in Bahia State in Brazil, provided by Gensys Consultores Associados S/C Ltda were used in analysis. The rank correlation among the breeding values (EBVs) of young bulls was estimated for scrotal circumference adjusted to: 1) age and weight (SC_{AW}), considered as reference, 2) conformation (SC_C), 3) precocity (SC_P), 4) musculature (SC_M), 5) age and conformation (SC_{AC}), 6) age and precocity (SC_{AP}), 7) age and musculature (SC_{AM}), 8) hip height and conformation (SC_{HC}), 9) hip height and precocity (SC_{HP}), and 10) hip height and musculature (SC_{HM}). After that, were analyzed the coincidences in positioning of top 0.1% animals classified according to their EBVs for SC_{AW} , comparing to the EBVs for the others selection criteria. The Spearman correlation among the adjusted scrotal circumference were high, close to unit. Thus, it was expected that there were no significant changes in positioning of the animals classified by EBVs for scrotal circumference adjusted to different traits. For the top four bulls there were not significant changes independent of the selection criteria utilized. But, from this point, it was possible to notice more pronounced changes in the rank of the animals for the alternatives adjustments. These results indicate that SC_{AW} , commonly used as selection criteria for sexual precocity in Brazil, may not indicate the most suitable sire for this selection objective. The changes in percentage of bulls EBV's deciles (DECA) were obtained by coincidence analysis using DECA 1 EBV's values for SC_{AW} as reference. Closely 70% of bulls that belonged to the first decile (DECA 1) for SC_{AW} remained in the same DECA for the other traits. However, around 20% of EBV's were reordered to second decile (DECA 2) and the remaining 10% changed between other deciles, comparing to SC_{AW} . This variation can influence the intensity of use of the sires according to the trait used as selection criteria. Thereby, the different adjustments of scrotal circumference provide distinct ranking of the young bulls. So, the SC_{AW} may not be a properly selection criteria to identify sexual precocity of Nelore herds.

Keywords: selection criteria, sexual precocity, rank changes

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