SEASONAL VARIATIONS AND CORRELATIONS OF ANDROLOGIC PROFILE FROM MATURE NELORE BULLS, RAISED UNDER GRAZING CONDITIONS.

SALVADOR, D.F.; ANDRADE, V.J.; VALE FILHO, V.R. AND DIAS, J. C.

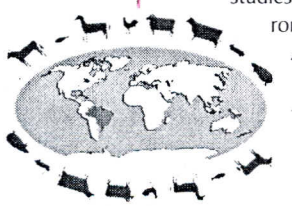
Among the 144 mature bulls examined, a total of 42 was selected for a second andrologic evaluation 45 days later. For 57(64,04%) mature bulls with BSE ≤ 60 and 32 (35,96%) with BSE < 60, no difference was observed for weight and CE, eventhough the semen physics and morphological aspects were different ($p<0,05$), showing only a slightly variation in CE, confirmed by the low correlation of BSE partial pontuation related to CE with the BSE total pontuation. From the first to the second evaluation it was observed an increase in the CE mean of 0,74 cm ($p>0,05$) and differences ($p<0,05$) in ejaculated semen volume, progressive motility, vigor, total spermatic defects, BSE partial pontuation related to the semen physical aspects, and BSE total pontuation. It was registered high positive correlation between vesicular glands and seminal volume (0.33). It were also registered positive correlation between spermatic concentration and semen motility (0.53) and vigor (0.45), and negative between motility (-0,37) and vigor (-0,36), with total major defects. For mature Nelore bulls the semen quality, even showing seasonal variations along the year, was the major characteristic in fertility selection based on BSE, showing the great importance of semen evaluation when selecting bulls raised under grazing conditions. Keywords: Andrologic profile, andrologic correlations, Nelore bulls, Zebu.

IDENTIFICATION OF PRODUCTION ENVIRONMENTS IN ANGUS POPULATIONS OF BRAZIL AND URUGUAY USING CLUSTER ANALYSIS

ESPASANDIN, A.C.; URIOSTE, J.I.; NAYA, H.; ALENCAR, M.M. AND CAMPOS L.T.

UNESP/Jaboticabal, SP/Brazil, UDELAR/Uruguay
EMBRAPA/CPPSE, São Carlos, SP/Brazil, PROMEBO, RS/Brazil.

This work had the objective of identifying production environments in Angus beef cattle populations of Brazil and Uruguay for subsequent regional genetic evaluation and genotype x environment interaction studies. Information was obtained from 87,636 animals born between 1990 and 2001, from 120 herds in Brazil and 24 herds in Uruguay. Cluster analysis was performed with the procedure CLUST of SAS, using the following variables: weight and date at birth and weaning, pre-weaning daily gain, age at weaning and age of dam. All variables were summarized by farm. Three clusters were identified using the Pseudo-F criterion, with dates of weaning and birth and daily gain explaining most of the differences between cluster groups. Cluster 1 joined 76 farms with early weaning dates (April) and high preweaning gains (0.77 kg/day), whereas Cluster 2 gathered 51 farms with intermediate birth-weaning periods (209 days) and pre-weaning daily gains (0.67 kg/day). Herds in cluster 3 (n=17) showed the oldest weaned calves with the lowest growth (0.53 kg/day) and youngest dams (4.3 years old on average). Both countries were represented in the clusters found. It is concluded that different production environments exist but they are not specifically related to country. This results suggest that studies on regional genetic evaluations and/or genotype x environment interactions between Brazil and Uruguay for the Angus breed should consider differences in production environment and not countries borders.



STUDY OF THE LACTATION CURVES, ADJUSTED BY INCOMPLETE GAMMA FUNCTION, FOR CROSSBRED F1 HOLSTEIN-GYR COWS

VAZ DE OLIVEIRA, H.T.[1]; REIS, R.B.[1]; GLÓRIA, J.R.[1] AND QUIRINO, C.R.[2]

1 Departamento de Zootecnia da Escola de Veterinária, UFMG.
2 Universidade Estadual do Norte Fluminense.

Records of 5.368 lactation from 66 dairy farms in the State of Minas Gerais were studied. The lactation curves were adjusted for calving season (dry and rainy), for milking management (with and without calf) and for milking system (manual and mechanical). The lactation curves were obtained using the Gama Incomplete Function (Wood 1967) as follow PL=atbexp-ct. The parameters a, b and c were obtained using PROC NLIN, SAS. The adjusted milk productions for multiparous (3919.2kg) cows were 48.9% greater than for primiparous (2001.4kg). The multiparous and primiparous cows produced 45% and 78%, respectively, of the total milk production up to the fourth lactation month. Lactation started in the raining season produced 45.8% of total milk during the first three months of lactation. If the grazing season were about Minas Gerais is six months, 62% of the milk production could be produced based on pasture. The adjusted milk production for cows in mechanical milking system was higher (28.9%) than those in manual milking. The cows milked with calves produced 10.6% more milk than cows without calves. There was no evidence of an ascending phase in the lactation curves, since most of the curves showed negative b values. Based on the low R2 values for the equations in this study, other models must be tested for better fitting of the lactation curve of F1 Holstein-Gyr cows.

EFFECT OF CORN SILAGE AND GRAZING STRATEGY ON INGESTIVE BEHAVIOR OF GRAZING DAIRY COWS.

SILBERMANN, A.V.; ELIZONDO, F.; MATTIAUDA, D.A. AND CHILIBROSTE, P.

An experiment was carried out to evaluate the effect of the maize silage -grazing session sequence during the day, on the ingestive behavior of grazing dairy cows in early lactation (35±15 days). A daily strip of pasture (15 kg DM cow-1) was open for each treatment between 9:00 and 15:00 hs. The maize silage (16 kg d-1 per cow, fresh basis) was offered at 17:00 (T1), at 8:00 (T2) or equally distributed at 17:00 h and 8:00 h (T3). Grazing and rumination activities were recorded during the whole grazing session during three consecutive days for three weeks. Biting rate (BR) was recorded at the beginning (M1), middle (M3) and end of the grazing session (M5) twice a week, during three weeks. Two main grazing bouts (9 to 10 and 11 to 15 h) were observed for all the treatments. However the treatments differed in the probability of finding a cow grazing during the grazing session. T2 exhibited the lowest probability at 10 am and T3 the highest at 12 and 13 h. Ruminating time was significantly different between treatments, exhibiting T1 the lower value (5%). Treatments did not differ neither on effective grazing time nor on mean BR. Bite rate decreased during the grazing session (M1 = 50 vs. M3 and M5=30 bites/minute; $p<0.0001$). A significant interaction between treatment and grazing session was detected. In animals under restricted grazing conditions the maize silage - grazing session sequence did not have significant effects on ingestive behavior.