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Reactivity of Nelore cows during reproductive management

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The Nelore breed is recognized as rustic and well adapted to parasites and high temperatures, and these features composes a good part of the Zebu genetic group. However, they are considered more reactive than other breeds and for this reason they require more time to be managed, putting at risk the safety of employees, the animals themselves and also compromise installations. In order to solve problems such as short duration and high nocturnal occurrence of oestrus many properties choose to perform artificial insemination during the breeding season. At this time, there is an intensification of human-animal interaction in short periods and at different times. When animals are more reactive on handling and are exposed to an uncomfortable thermal environment the stress rises causing impacts on reproduction and production. Stress is comprehended by a set of behavioral and physiological changes when in threatening or uncomfortable situations caused by stressors (physical environment, social or management practices). Some farms have already made the selection for temperament, using different methods of evaluation in accordance with the conditions of creation and infrastructure available at the property. Thus, the aim of this research was to evaluate the reactivity of Nelore cows in different managements that occur in the breeding season. Was evaluated 20 multiparous Nelore cows from October 2013 to March 2014, during the spring and summer seasons with air temperature averages ranging from 22.7 ± 4.9°C to 25.2 ± 4.7°C, in the *Campus*' beef cattle sector of the Universidade de São Paulo in Pirassununga. Reactivity was evaluated using scores of escape velocity or output speed using subjective scores: 1 - does not leave the chute, needs to be touched; 2 - walking out the chute; 3 - exits the chute at average speed; 4 – exists the chute quickly. So, as higher is the score as higher is the stress. The scores were given immediately after the animals exists the chute from the managements of sync (M1), artificial insemination (M2), pregnancy diagnosis at 30 days (M3), pregnancy diagnosis at 60 days (M4), pregnancy diagnosis at 90 days (M5). The data of the escape score was analyzed using analysis of variance, using the GLM procedure of SAS and means were compared using the Tukey test at 5%. It was noted that, there was no differences on the average of escape score (2.34) at the managements M1, M2, M3 and M4. However, in management M5 the average was 1.79 differing from the other managements ($P<0.05$). In this way, at the last management, there was a reduction of 23.50% in escape score. So, we conclude that with the increase in frequency of human-animal interactions during the reproductive managements, there is a decrease in the escape score and consequently the stress, contributing to the agility on each management, security of employees, lower physical trauma on animals and damages to facilities.

Keywords: AIFT, beef cattle, breeding season, escape score, human-animal interaction, stress.