

Abstract

Flight Zone as an Alternative Temperament Assessment to Predict Animal Efficiency [†]

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Abstract: Animal temperament evaluation can be included in the cattle selection program also because of an existing correlation with performance. However, there are different assessment methods such as flight speed (time and speed that an animal takes to leave the crush) and exit score (indicating in which pace it does). Flight zone (FZ) refers to the distance that an animal allows human proximity without signs of fear (e.g., moving away and/or aggression) and it was used in this study as an alternative approach to measure temperament without putting cattle through the crush. Apparently, there is no study correlating FZ with performance. Therefore, a pilot trial was conducted to evaluate the correlation between average daily gain (ADG), dry matter intake (DMI) and feed conversion ratio (FCR) of ten Brahman steers. Steers were classified into temperament groups (Docile < 2 m; Moderate between 2 to 2.9 m; and Lively ≥ 3 m). Even though no significant differences were found for ADG ($P = 0.65$), DMI ($P = 0.36$), and FCR ($P = 0.46$), the docile group gained 133 grams/day more than lively counterparts, most likely because of the extra 50 grams consumed. Furthermore, lively steers required an extra 1 kg of feed per kg of gain in comparison to docile animals, 8.24 vs. 7.28 kg FCR, respectively. These results are promising and indicate that FZ could be an efficient way to measure temperament in cattle. Thus, in order to confirm these findings, a new experiment with a more representative number of steers ($n = 30$) will be conducted.

Keywords: cattle temperament; flight zone (FZ); average daily gain (ADG); dry matter intake (DMI); feed conversion ratio (FCR)

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