

Abstract Title: Effect of a neuro-sensory additive on behaviour and growth of feedlot finishing beef cattle

# **ABSTRACT PREVIEW**

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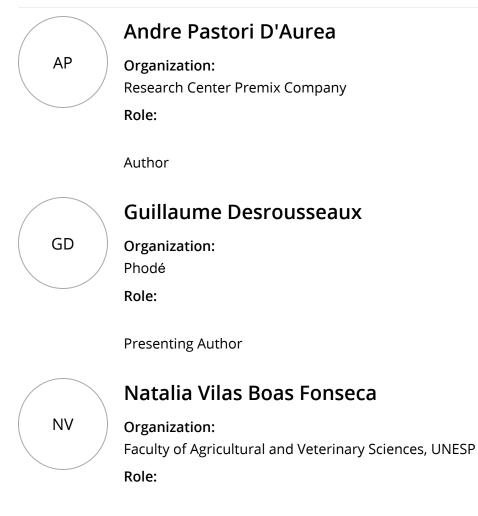
Edit Effect of a neuro-sensory additive on behaviour and growth of feedlot finishing beef cattle

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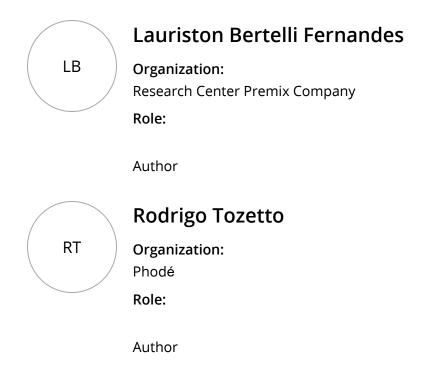
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# Abstract Submission

#### Abstract

Combining natural additives with specific and selected neuro-sensory molecules is a possible solution to manage stress in feedlot beef cattle. The objective of this study was to compare the combination of a neuro-sensory additive (VeO) with a mix of natural additives (Fator P, Premix, Brazil) on behavior and performance. This study was conducted from May to August in the Premix Research Center, Patrocínio Paulista, Brazil. Fator P is made up of amino acids, organic minerals, probiotics, essential fatty acids and surfactant. VeO is based on a specific extract from Rutacea family. 80 Nellore bulls were randomly assigned to a control group (FP) and a treated group with 40 animals in each (10 per pen). Both groups received the same total mixed ration with the addition of a neuro-sensory additive (FPV) as the only difference. Adaptation period was considered as 21 first days out of 100 days total fattening period. Analyzed variables were eating (min/day) and rumination (min/day), average daily gain (g/day), dry matter intake (%BW) and feed conversion. Tukey test was used for comparison of means. During adaptation, animals spent 30.8 % more time ruminating. Feed conversion and DMI with FPV tended to be more efficient by 30.86% (p=0.074) and 31.16% (p=0.063) respectively. After 21 days, treated animals continued eating (p=0.14) and ruminating more as well (p=0.07). Over 100 days, bulls receiving FPV showed a higher average daily gain by 9.94% (+153 g/day, p=0.07) consuming less feed per kg of growth (6.46 vs. 7.00; -7.7%; ns). Results showed that the use of the neuro-sensory additive with the mix of natural additives changed behavior of feedlot finishing bulls, leading to more efficient production with an increased average daily gain and an improvement of feed conversion. < >

### Keywords

sensory, livestock behaviour, sustainable