

RUEDA, P.M.; SANT'ANNA, A.C.; OLIVEIRA, C.M.G.; PARANHOS DA COSTA, M.J.R. Effects of operant conditioning on the reactivity of nellore heifers during handling. In: Behaviour 2011 – Joint meeting of the International Ethological Conference and the Animal Behaviour Society, 1., 2011, Bloomington. **Anais...** Bloomington: Animal Behaviour Society, 2011. p. 220.

---

### **Effects of operant conditioning on the reactivity of nellore heifers during handling**

Paola M. Rueda<sup>1</sup>, Aline Sant'Anna<sup>1</sup>, Cintia M, Gonçalves de Oliveira<sup>2</sup>, Mateus J. R. Paranhos da Costa<sup>1</sup>

<sup>1</sup>Universidade Estadual Paulista, Brazil; Email:paolamrueda@yahoo.com.br

<sup>2</sup>Precoce comercial agropecuária LTDA

The aim of this study was to assess the effect of operant conditioning with positive Reinforcement on the reactivity of Nellore heifers. An operant conditioning protocol was applied to 195 Nellore heifers with 24 months. The reinforcement was realized once a week during four weeks consisting of a delivery of supplement after the animals have been conducted by the corral. The reactivity tests were applied just before and after the conditioning period, recording: 1) movement inside the crush (MOV), from 1 (no movement) to 5 (frequente movements), 2) tension in the crush (TEN), from 1 (relaxed) to 4 (very tense) and 3) flight speed (FS), recording the speed at which an animal exit of the squeeze chute. Statistical analyses were done using Paired t Test for FS and Wilcoxon test for MOV and TEN. All variables were affected by the operant conditioning protocol ( $P > 0.01$ ). MOV: from  $2.44 \pm 0.87$  to  $2.08 \pm 0.66$ ,  $Z = -4.85$ ; TEN:  $2.60 \pm 0.66$  to  $2.43 \pm 0.62$ ,  $Z = 2.61$ ; and FS:  $4.06 \pm 1.04$  to  $2.83 \pm 0.63$  m/s,  $t = 14.58$ , showing a strong indication that the animals were less reactive to handling after the conditioning. We conclude that the operant conditioning had positive effect on heifers' temperament.