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# INFLUENCE OF ENVIRONMENTAL ENRICHMENT, COMPOSITION OF THE SOCIAL GROUP AND AGE ON MAINTENANCE AND COMFORT BEHAVIORS IN GROWING RABBITS

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### **ABSTRACT**

The objective was to investigate if an environmental enrichment and the composition of social group would affect the frequency of maintenance and comfort behaviors in growing rabbits. The experiment was initiated at weaning with five weeks and finished at 11 weeks of age, involving 144 rabbits from the Botucatu genetic group, 72 males and 72 females. The animals were assigned to a completely randomized design, in a 2 x 3 factorial arrangement (with or without cage enrichment and three compositions of social groups – males, females, or mixed genders) with repeated measures (weeks) and four replicates. Stocking density was six rabbits per cage (0.48 m<sup>2</sup>). Two eucalyptus sticks were hanged to the cage ceiling in enriched cages. Six cameras were used for image recording during 24 h, once a week, on weeks 7, 10 and 11. The behavioral activities were "feeding" (eating or drinking), "resting" (sitting, lying or sleeping) and "grooming" (licking, scratching or nibbling of the body). Cages were scanned once every 20 minutes for registration of these behaviors. The numbers of occurrences per day were summed up on a cage basis. A social group x age interaction effect was found on feeding: on week 7, female groups showed higher frequency of feeding behavior than male and mixed groups; this difference disappeared on weeks 10 and 11. An enrichment x age interaction effect was found on grooming: on weeks 10 and 11 rabbits in enriched cages showed lower frequency of grooming, but this difference was absent on week 7. As age progressed, feeding decreased and grooming increased.

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Resting was more frequent on week 10 than on weeks 7 and 11. Environmental enrichment and composition of the social group changed maintenance and comfort behaviors in growing rabbits.

Keywords: behavior, environmental enrichment, feeding, grooming, resting, welfare



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