

The presence of a buck reduces aggression in group-housed breeding rabbits, but may increase restlessness

S. Graf¹, L. Bigler¹, H. Würbel² and T. Buchwalder¹, ¹Centre for proper housing of poultry and rabbits (ZTHZ), Federal Veterinary Office FVO, Burgerweg 22, 3052 Zollikofen, Switzerland, ²Division of Animal Welfare and Ethology, Department of Veterinary Medicine, Justus-Liebig-University of Giessen, Frankfurter Strasse 104, 35392 Giessen, Germany

Aggression in group-housed breeding rabbits (*Oryctolagus cuniculi* L.) may cause injuries and chronic stress, thereby compromising both animal welfare and production. However, group housing of breeding rabbits is recommended for better utilisation of space in larger enclosures and to enable the does to experience socio-positive interactions (e.g. allogrooming, resting in body contact). In practice, one buck is housed together with a group of females for about 10 days per reproduction period which is thought to have an appeasing effect on the does. The aim of the present study was to test this hypothesis by assessing the buck's influence on the does' activity and agonistic behaviour. Eight groups of five to seven 32 week old does (ZIKA-Hybrids) in their 4th reproduction phase were housed in littered pens (330cm x 175cm, 3 levels). General activity (feeding, locomotion, social interaction, grooming) and agonistic behaviour (aggression, fighting, fleeing) were recorded in each group from 24-hour videos one day before and one day after the buck was inserted into the group. The buck's effects on the does' general activity were assessed by scan-sampling at 4 minute intervals, while agonistic interactions between does were recorded by all-occurrence sampling. After the buck had been introduced, activity increased significantly from 40.67% per 24-hour (mean, SD=2.8) to 43.18% (SD=3.30; paired T-Test; N=8; T=-3.113; df=7; P=0.017), while agonistic interactions decreased from 7.75 (mean, SD=2.82) to 3.50 per 24-hour (SD=1.77; paired T-Test; N=8; T=3.440; df=7; P=0.011). These findings indicate that the presence of a buck in a group of breeding does can reduce potentially harmful agonistic interactions. However, further research is needed to assess whether the small but significant increase in general activity, which possibly reflects increased restlessness induced by the buck's mating behaviour, could have any adverse effects.