

## **Title: Do Rabbits Suffer from Loneliness?**

Although various welfare associations suggest rabbits housed on their own are more stressed than rabbits housed in pairs there has been little published data to substantiate this. In an attempt to obtain objective data to examine this assertion, endogenous stress levels as indicated by faecal corticosterone levels measured by an enzyme immunoassay (EIA) were determined in two groups of rabbits - one group housed singly and the other in pairs. All rabbits were housed in a single establishment and apart from shared or unshared housing all other husbandry conditions were comparable. The study group consisted of 39 rabbits, comprising nine single females and ten single males and ten each of males and females from mixed sex pairs. The EIA was validated for rabbit faecal corticosterone by demonstrating dilutional parallelism to known corticosterone standards. Statistical analysis was carried out on two variables, housing and sex, by a two-way ANOVA after first log transforming the data to ensure that this was normally distributed (SPSS 16.0 for Windows). Faecal corticosterone concentrations were found to be significantly higher in rabbits housed alone compared to those in pairs ( $p < 0.001$ ) and there was no significant difference ( $p = 0.918$ ) between the sexes. There was no significant relationship between sex and housing ( $p = 0.309$ ). Since faecal glucocorticoids have been related to chronic stress levels in animals, these results suggest that rabbits housed alone are more stressed than those housed in pairs and that this occurs independently of sex.

**Natalie Lisiewicz, BVet Med 5**