

Investigation on the water and food intake in dwarf rabbits kept under varying dietary and drinking techniques

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Key words

Rabbit, drinking, feeding regime, drinking system, nipple drinker, open dish, intake

Aim of the study

Determine feeding and drinking practice in pet rabbit husbandry in Switzerland; determine preference for drinking system in rabbits; evaluate influence of feeding regime and drinking system (open dish vs. nipple drinker) in rabbits; evaluate influence of water restriction (access 24, 12 or 6 h) in rabbits.

Material and methods

Husbandry practice: web-based survey. Experiment with 12 rabbits (previously habituated to nipple drinkers) with choice experiments, and with various feeding and drinking regimes during which food and water intake, faeces and urine output were quantified; videotaping of 5 animals during various drinking regimes.

Results and significance

The survey indicated a high standard of rabbit husbandry amongst the participants; however, further education of pet owners regarding the use of grain feeds, group housing, and securing adequate water supply would be beneficial. Pet owners use open dish drinkers more often than nipple drinkers.

Rabbits in the experiment unanimously preferred open dishes over nipple drinkers. Drinking speed (water per unit time) was much faster with open dishes. Water intake under ad libitum access did not differ significantly between open dishes or nipple drinkers, but faecal water content was lower with nipple drinkers, indicating a physiological response. Restricted water access interrupted the natural circadian drinking pattern and diminished water and food intake, led to lower food and water intake. Under restricted water access, the drinking system had a significant effect on water intake, with lower intakes with nipple drinkers. High proportions of fresh parsley or hay in the diet (as compared to grain-based diet mixes) enhanced total water intake and urine output, and led to lower urinary dry matter content and lower urinary calcium concentrations. For optimal water provision – in the sense of urolith prophylaxis, but also especially for patients that have been treated for urolithiasis – we recommend a diet with a high proportion of fresh food (green vegetables), hay ad libitum, and ad libitum water access from open dish drinkers.

Publications, posters and presentations

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