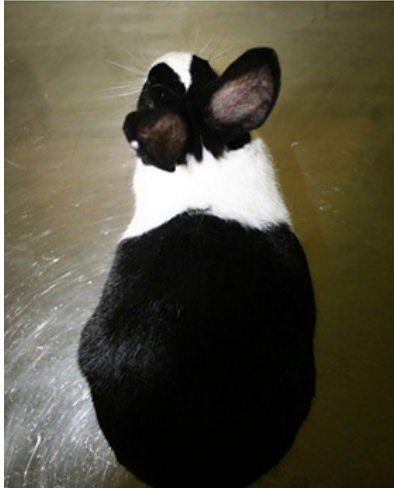


ADVISING AGAINST MUESLI-STYLE DIETS FOR PET RABBITS

Rabbit at ideal weight - BCS of 3



Rabbit fed muesli only - BCS 5



CHANGING DIETARY ADVICE FOR PET RABBITS

Rabbits are popular companion animals, with an estimated 1.7 million pet rabbits in the UK. Feeding of muesli-type diets is detrimental to rabbit digestive and dental health and is associated with obesity.

Research at the University of Edinburgh resulted in an immediate impact on changing the dietary advice for pet rabbits including the withdrawal of muesli-type diets from the UK's largest pet food retailer chain.

Despite the popularity of rabbits as companion animals, feeding trials to determine basic dietary requirements of pet rabbits have not been performed, resulting in variable dietary recommendations.

Nutritional guidelines for rabbits have remained unchanged since the 1970s and are based on research conducted on short-lived commercially farmed or laboratory rabbits. Diets formulated to these guidelines, in particular muesli-type diets, have been implicated by clinicians and welfare organisations as playing an important role in many disease processes, particularly when fed in the absence of hay or grass.

The 2011 PDSA Animal Wellbeing Report estimated that at least 750,000 rabbits are not getting the recommended daily amount of hay or grass, 49% of owners feed muesli diets as the main food, and inappropriate diet was the primary rabbit welfare concern of vets and vet nurses responding to the survey. The 2012 PDSA Animal Wellbeing report found that 44% of owners continue to feed mainly muesli and continued to identify inappropriate diet and dental disease as the top welfare concerns for rabbits.



THE EFFECTS OF MUESLI DIETS ON THE HEALTH AND BODY CONDITION OF PET RABBITS

University of Edinburgh research by Professor Anna Meredith, Dr Darren Shaw and Dr Brigitte Lord involved a two-year controlled feeding trial on 32 Dutch rabbits at the Food and Environment Research Agency, assessing the effects on rabbit health and welfare of four diets: hay only, nugget and hay, muesli only, and muesli and hay. The key aims of this study were to investigate the effects of these diets on body weight and body condition score (BCS), food and water intake, faecal output, dental health and behaviour.

The study found statistically significant evidence that feeding of muesli is associated with:

- Obesity (BCS>4) and inactivity; rabbits fed muesli only spent the least amount of time feeding and most time inactive.
- Selective feeding, leading to intake of an unbalanced diet with low fibre intake. Rabbits fed muesli selectively ate the grains and extrudates, and left the stalks and fortified pellets.
- Reduced water intake.
- Smaller droppings and low faecal output, indicating reduced gastrointestinal motility.
- Uneaten caecotrophs.
- Dental disease - increased tooth length and curvature (PM1) and widening of interdental space between M1-M2 in both groups fed muesli, indicating early dental pathology. 37.5% rabbits in muesli-only group developed clinical dental disease and had to be removed from the study.

The results led to widespread national (UK) recognition of the adverse effects of muesli-type diets to pet rabbit health and welfare. In addition, the research was adopted into the new European-wide Rabbit Nutritional Guidelines published by FEDIAF (European Pet Food Industry).

MUESLI-TYPE DIETS REMOVED FROM SALE

The impact of this research is on health and welfare of rabbits and policy with regards advice given to pet owners. This research provided evidence that the commonly fed and widely available muesli-type foods cannot be recommended for pet rabbits, and led to widespread publicity from vets, pet food manufacturers and retailers, and animal welfare organisations including the RWAF, PDSA and RSPCA, to stop the feeding of muesli to rabbits and promote better nutritional advice. It led to large-scale removal of muesli-type diets from sale.



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