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THE NEW ROYAL CANIN® SATIETY WEIGHT MANAGEMENT X–KIBBLE INCREASES MEAL DURATION AND REDUCES BEGGING BEHAVIOUR

Key Points

- First study to date reporting the benefits of a new kibble shape on eating behaviour
- A cross shaped kibble significantly increased meal duration by 57% compared to a round shaped kibble (O-kibble) in 24 dogs.
- Palatability was tested with an established protocol in Europe and US. The X-kibble was at least as or even more preferred than the O-kibble.
- In a multi-centre field study, owners reported a significant decrease in begging behaviour after only 15 days on the new kibble shape.
- Owner also reported that their dogs ate slower and chewed more.

SOME RESULTS ARE PUBLISHED IN:

COMPARISON OF THE EFFECTS OF DIFFERENT KIBBLE SHAPE ON VOLUNTARY FOOD INTAKE AND PALATABILITY OF WEIGHT LOSS DIETS IN PET DOGS.

Sagols E, Hours MA, Daniel I, Feugier A, Flanagan J, German AJ, 2019. Research in Veterinary Science 124; 375-382. https://doi.org/10.1016/j.rvsc.2019.04.023

Purpose

To determine the effect of a new X-kibble shape for SATIETY WEIGHT MANAGEMENT on meal duration & palatability and to assess owner's perception of how the new kibble shape influences chewing and begging behaviour.

Design

The new X-kibble shape was assessed in several trials in the ROYAL CANIN® Pet Centres and in a multi-centre clinical trial.

Pet Centre Studies

Trials were performed in the ROYAL CANIN® Pet Centres in Aimargues, France and Lewisburg, United States.

Meal duration

Meal duration was assessed with 24 dogs (11 male, 13 female; median age 3 years, range 2-8 years; median weight 24.9 kg, range 10.2-32.7 kg; 17 Labradors, 3 Brittany Spaniels, 2 Standard Poodles, 2 Beagles) in the Lewisburg Pet Centre. Each dog was offered the food at 100% MER for 15 minutes on 3 non-consecutive days. In a cross over design, 12 dogs received the O-kibble first, while the other half received the X-kibble first.

Palatability study

Palatability was assessed in 30 dogs in the Aimargues Pet Centre (all female; median age 5 years, range 2-7 years; median weight 16.4 kg, range 6.2-38.2 kg; of 16 different breeds) and 28 dogs in the Lewisburg Pet Centre of 12 different breeds (16 female, 12 male; median 6 years, range 4-9 years; median weight 7.2 kg; range 3.5-27.5 kg).

Dogs were individually offered two identical bowls of food, filled with the X-kibble version of SATIETY WEIGHT MANAGEMENT in one bowl and the O-kibble version in the other bowl. Bowls were withdrawn when dogs had eaten half of their daily energy requirements. The amount of each food consumed was then measured.

Field Study

Data were collected on 50 dogs of 22 different breeds (34 female, 16 male; median age 8 years, range 2-15 years; median weight 32.5 kg, range 5-62.5 kg) from 10 clinics in Europe and 14 dogs of 5 different breeds (7 female, 7 male; median 9 years, range 1.5-11 years; median weight 34.5 kg, range 4–51 kg) from 2 clinics in the USA.

Inclusion criteria: Dogs were overweight or obese (BCS≥6/9) and had to be fed a weight loss diet with a O–shaped kibble (ROYAL CANIN® SATIETY or Hills Metabolic) for at least one month at time of inclusion into the study.

Dogs were switched to the new X–kibble SATIETY WEIGHT MANAGEMENT for 15 days.

Owners were asked for their perception of meal ingestion speed, chewing and begging behaviour at the beginning and at the end of the study.

Results

Meal Duration

Median meal duration was significantly longer for the X-kibble than the O-kibble (n=24; X-kibble: 292 sec, 103-900 sec; O-kibble: 186 sec, 89–900 sec; p<0.001) (Fig. 1).

Palatability

Dogs at the Aimargues Pet Centre preferred the X-shaped kibble significantly over the O-shaped kibble (n=30, p<0.001). Pets in the Lewisburg Pet Centre did not differ in their preference for either kibble shape (n=28; n.s.).

Field Study

Owners reported less begging behaviour when their dogs consumed the X-kibble diet compared to their original O-kibble diet (Europe: n=50; p=0.01; US: n=14; p=0.01; Fig. 2). Owners also reported slightly (Europe: 30%, US: 58%) or markedly (Europe: 18%, US: 21%) more chewing behaviour and slightly (Europe: 34%; US: 71%) or markedly (Europe 20%; US: 0%) slower speed of ingestion with the X-kibble compared to their original diet.

Conclusion and clinical relevance

This is the first study investigating the effect of kibble shape on eating behaviour. The new cross shape significantly increased how long it took dogs to consume their meal. This effect was not due to a reduced palatability, as dogs preferred the new shape the same or more than a round shape.

Owners confirmed that dogs appeared to eat slower and chew more with the X-shape than an O-shaped kibble. Most importantly, owners reported a significant decrease in begging behaviour after only 15 days on the new kibble shape.

Nutritional recommendation

Begging behaviour is a known barrier to owner compliance, contributing to treatment failure in weight loss programmes. The proven formula of SATIETY WEIGHT MANAGEMENT with its high natural fibre level has previously been shown to help control begging in 83% of dogs (Flanagan et al, 2017. PLoS One). The X-shaped kibble is a new approach to help keep dogs even more satisfied between meals.

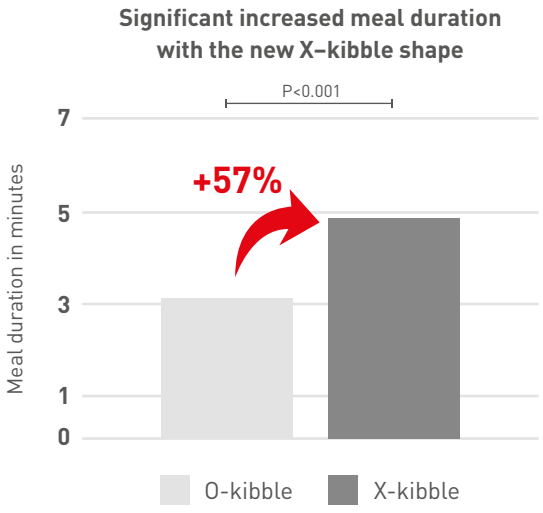

Fig. 1: Median meal duration was significantly longer for the X-kibble than for the O-kibble (n=24; X-kibble: 292 sec, 103 - 900 sec; O–kibble: 186 sec, 89–900 sec; p<0.001).

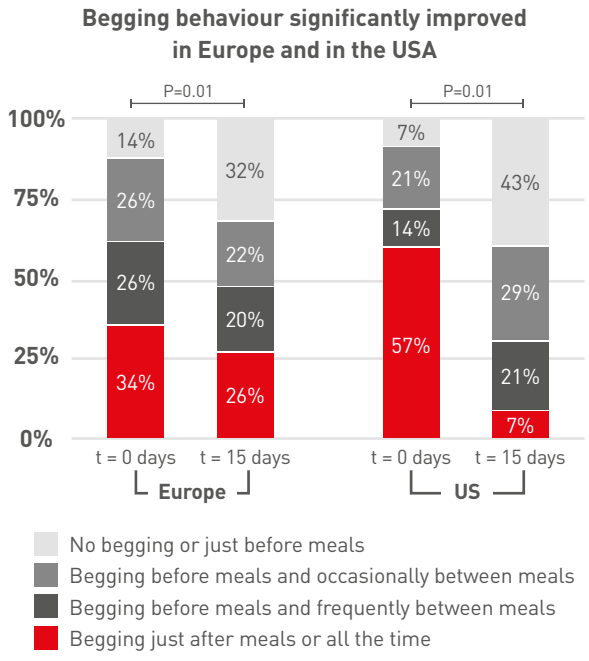

Fig. 2: Begging behaviour significantly improved for dogs in Europe (n=50; p=0.01) and in the USA (n=14; p=0.01) over the course of the study .