

Effect of **PETBREW**® on Chronic Skin and Anxiety Issues in Domestic Dogs (*Canis familiaris*)

Don Pearson^(1, 2), Andre Prassinis⁽²⁾ and Heather Hughes⁽²⁾

(1) Corresponding author don@freshprobiotics.com

(2) BioBrew Ltd, PO Box 10076 Rotorua Mail Centre, Rotorua 3046, New Zealand. www.freshprobiotics.com

Introduction

Probiotic *Lactobacillus sp.* have been used successfully to treat domestic dogs for a range of ailments. These range from reducing intestinal pathogens and parasites such as hook worms (Coelho et al., 2013), *Clostridium* and *E. coli* (Hasiri et al. 2015, Pasher et al. 2008), and *Campylobacter* (Hasiri et al., 2015) to reducing dermatitis (Marsella, 2009) and improving feed tolerance in dogs with non-specific dietary sensitivity (Pascher et al., 2008).

PetBrew® is a multi-strain, fresh, active, probiotic preparation, unique on world markets. PetBrew® delivers active microbes, primarily *Lactobacillus sp.* and their metabolites, in an easy to use liquid form, directly to the gastrointestinal tract, through application to food.

PetBrew® customers have reported: improvements to skin and coat condition, improvements to overall health and energy, control of loose stools and diarrhoea, improved freedom of movement, and more.

In order to verify some of these observed effects two experiments were undertaken on domestic dogs in 2017.

Method

Two experiments were undertaken, the first on dogs with chronic skin conditions in February 2017 and the second on nervous/anxious dogs in March 2017.

Both experiments were before and after treatments with no control group. Participants were self-selected. They agreed to follow the case study protocol, take before and after photographs, and diligently complete online start and finish surveys.

Dogs included in the trial received PetBrew® daily for 30 days for the itchy dog experiment and 14 days for the nervous/anxious dog experiment with the product mixed into the dog's food. Small dogs received 10ml/day, medium dogs received 20ml/day, and large dogs received 30ml/day.

We asked participants to record their dog's body condition score, either the dog's chronic skin condition score or the dog's anxious/nervous behaviour level (depending on the experiment), overall skin condition, freedom of movement, and general mood/demeanour.

Participants used a system of visual assessment of body condition with scores ranging from 1 to 9 with 1 being emaciated/starving and 9 being morbidly obese. This same scale (1-9 with 1 appalling and 9 near perfect) was used to score the other categories, i.e., skin condition, freedom of movement, and mood.

Results were analysed using a paired t-test (before and after)

Results: Eighteen participants completed the course of product administration and completed the online surveys recording their observations for the itchy dog experiment and 10 for the nervous/anxious dog experiment.

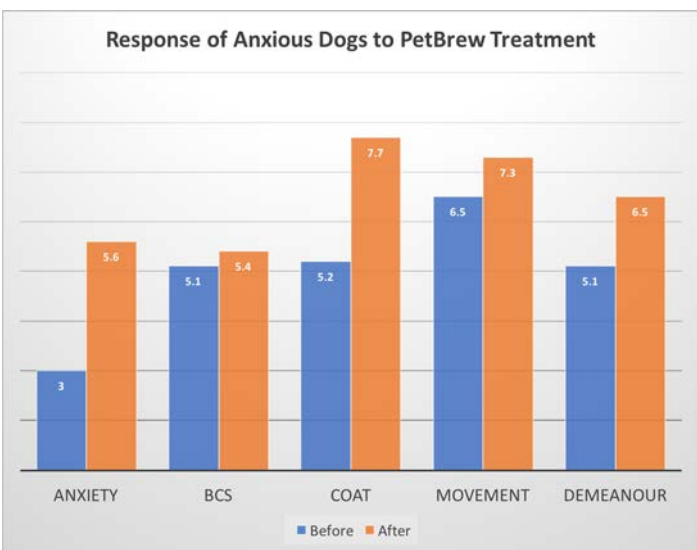
Nervous/Anxious Dogs



Of the 10 dogs, eight saw reports of improvement in the nervous/anxious behaviour and only 2 of the animals stayed the same. None fared worse. The average improvement in the nervous/anxious behaviour scores was 2.6 points and the difference was highly statistically significant

On average dogs Body Condition Score (BCS) increased by 0.3 from 5.1 (in the optimum range of 4.5 to 5.5) to 5.4. This implies better digestion and gut function.

Movement, coat condition and demeanour improved too.



Administration of PetBrew® reduced anxious/nervous behaviours, improved coat condition, body condition, freedom of movement, and reduced stress symptoms of dogs suffering from chronic nervous/anxious behavioural issues.

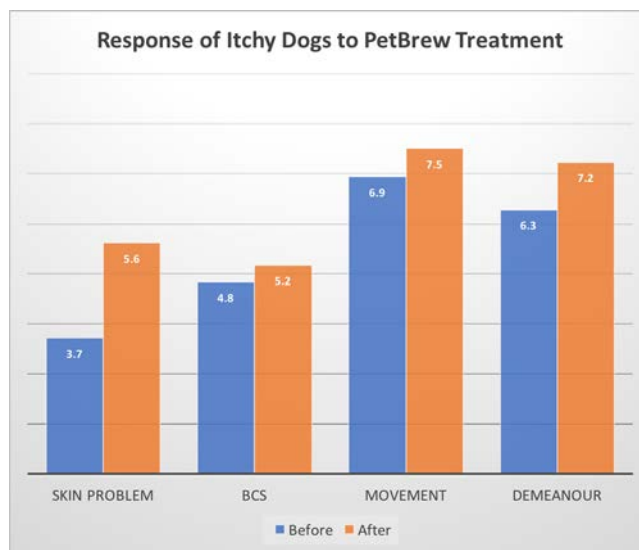
Itchy Dogs



Of the 18 dogs, only 3 of the animals did not show an improvement in their chronic skin condition. The average improvement was just under 2 scoring points at 1.9 and the difference was highly statistically significant.

On average dogs Body Condition Score (BCS) increased by 0.4 from 4.8 (just under the optimum of 5.0) to 5.2. This implies better digestion and an experiment on poor doers is warranted.

Movement marginally improved and demeanour improved too.



Administration of PetBrew® improved the chronic skin condition, body condition, freedom of movement, and mood of dogs suffering from persistent chronic skin conditions.