Probiotics

The benefits of probiotics are well documented — especially as regards to supporting gastrointestinal health. Probiotics are commonly defined as “ingested microbes that can modify intestinal microbial populations in a way that benefits the host.”

Enterococcus faecium has been used as a probiotic for humans and animals for the past 20 years and is recognised as one of the most effective probiotic strains. E. faecium is a lactic acid producing commensal gram-positive bacterium that normally lives in the large intestine of humans and many other warm-blooded species of animals including dogs.

Enterococcus faecium NCIMB 10415 is the only strain of E. faecium approved in EU feedstuff legislation for use in dogs. The fact that it is approved as a feed additive by the EU authority means that its use in dogs has been evaluated and approved by the European Food Safety Authority. This strain is also known to survive acidic conditions, which is important as in order for any probiotic bacteria to be effective it must be able to survive passage through the stomach to reach the small and large intestine.

A strain of E. faecium has been shown to be present in dogs’ faeces up to 3 months after cessation of its use in dogs. The fact that it is approved as a feed additive by the European Union means that its use in dogs has been evaluated and approved by the European Food Safety Authority. This strain is also known to survive acidic conditions, which is important as in order for any probiotic bacteria to be effective it must be able to survive passage through the stomach to reach the small and large intestine.

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Prebiotics

Prebiotics also have an important role to play in maintaining gut health by promoting the growth of beneficial bacteria. They are defined as “non-digestible food ingredients that beneficially affect the host by selectively stimulating the growth and/or activity of one or a limited number of bacteria in the intestine, and thus improve host health.” Prebiotics are normally carbohydrates such as dietary fibres, meaning that they are not digested by the enzymes present in the gut of monogastric animals.

Bio-Mos® is one such prebiotic. It is a mannan-oligosaccharide from the outer cell wall of brewers yeast, Saccharomyces cerevisiae. Bio-Mos® is fermented by lactic acid producing, commensal bacteria naturally present in the dog’s small and large intestine (e.g. Bifidobacterium and Lactobacillus species).

Supplementation of Bio-Mos® also promotes the growth of these bacteria by inhibiting the growth of pathogenic bacteria in two ways:

1) Creating an acidic environment

Zentek et al. (2002) found that when Bio-Mos® was added to dogs’ diets the pH value of their faeces significantly decreased and Grieshop et al. (2004) showed an increase in the number of faecal Bifidobacterium when supplemented with Bio-Mos®.

2) Competitive inhibition

Bio-Mos® can block the attachment of bacterial pathogens to cells of the intestinal wall. This effect is accomplished because Bio-Mos® contains mannose residues resembling the mannose bearing lectins which are the sites of attachment on the intestinal cell for several pathogenic bacterial species (Spring et al. 2007, Grieshop et al. 2004). As bacterial attachment to the intestinal wall is a necessary pre-requisite for colonisation, infection may be prevented.

Canikur® Pro

Canikur® Pro is specifically designed for dogs to help support recovery from digestive upset. Canikur® Pro is the only product combining the prebiotic Bio-Mos®-C, an EU approved probiotic — E. faecium NCIMB 10415 and the special clay Montmorillonite.

Montmorillonite

Montmorillonite is a highly porous and adsorbent clay mineral. Helmy et al. (1999) showed that one gram, fully hydrated, has a surface area of more than 600 m².

Montmorillonite has the ability to adsorb toxins and pathogens, including viruses (Lipson et al. 1983) and it has been shown to be 20 times more effective than kaolin at adsorbing reovirus.

Canikur® Pro is a highly palatable, meat flavoured paste which can be given directly into the dog’s mouth or on food. In a palatability survey, Canikur® Pro was found to be more palatable than the two market leading probiotic pastes.

Canikur® Pro is available in two syringe sizes: 15ml and 30ml. The dial-a-dose syringe has a plug-free design, making it convenient and controllable in owners’ hands to aid compliance and ease of use.

References


Canikur® Pro contains Enterococcus faecium (NCIMB 10415), Montmorillonite and Bio-Mos® C. Bio-Mos® C is a trademark of Alltech, Inc. This is a product which is subject to sauherilisation by the Irish Medicines Board. Further information available from Boehringer Ingelheim Vetservices, Bracknell, RG12 8YS, UK. Tel: +44 (0)1344 746959. Email: vetmedica.uk@boehringer-ingelheim.com

Date of preparation: October 2009. AVD 6036

ADVANCEMENT FEATURE SUPPLIED BY BOEHRINGER INGELHEIM

Any a Alderslade

Any a graduated from the University of Glasgow in 2001. She then went on to complete an internship at the University of Glasgow before working in mixed practice. Anya then joined Boehringer Ingelheim in 2006 where she currently works as a Companion Animal Veterinary Advisor.

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Canikur® PRO PALATABILITY SURVEY

(20%) Canikur® Pro (80%)

(35%) Market-leading brand A

(100%) Market-leading brand B

WON’T EAT AT ALL

ANYWAY