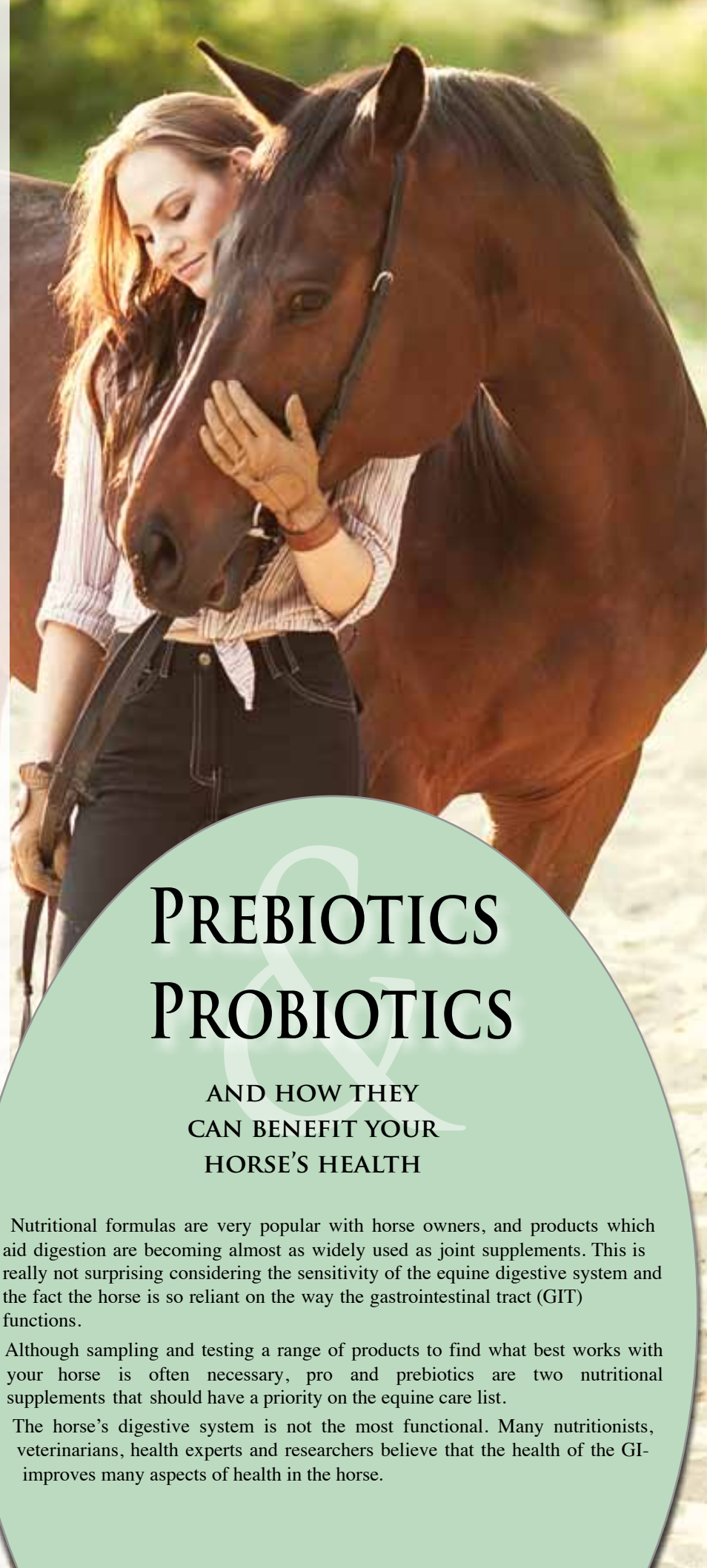


As horse owners we enjoy our horses being well-cared-for; not treated as pampered pets but receiving the best of everything - limited only by the size of our piggy-bank!

Regardless of whether a horse is a paddock ornament, trail hack or four-star competitor, most owners enjoy, or dream of having, that luxury float, McMansion stables, beautiful green pasture, the latest health equipment, brand name rugs and matching gear for training and competing.

While catering for the physical comforts of our horses is fun it is imperative that the horse's health is managed sensibly.

**by Antoinette Foster BSc
Nutrition, Equine Nutritional
Therapist and Medical
Herbalist©**



PREBIOTICS & PROBIOTICS

**AND HOW THEY
CAN BENEFIT YOUR
HORSE'S HEALTH**

Nutritional formulas are very popular with horse owners, and products which aid digestion are becoming almost as widely used as joint supplements. This is really not surprising considering the sensitivity of the equine digestive system and the fact the horse is so reliant on the way the gastrointestinal tract (GIT) functions.

Although sampling and testing a range of products to find what best works with your horse is often necessary, pro and prebiotics are two nutritional supplements that should have a priority on the equine care list.

The horse's digestive system is not the most functional. Many nutritionists, veterinarians, health experts and researchers believe that the health of the GI-improves many aspects of health in the horse.

Wind and colic, digestion, utilisation and absorption of nutrients, assists in maintenance of immune function and protecting the horse against diarrhoea-causing organisms such as salmonella. A healthy GIT can also reduce the risk of laminitis.

There are a number of products on the market that contain digestive enzymes, including specific herbs such as slippery elm, Aloe Vera and marshmallow root. Prebiotics and Probiotics are the most commonly used ingredients in digestive products but whilst their names are similar they are two entirely different types and have actions unique to each form.

PROBIOTICS

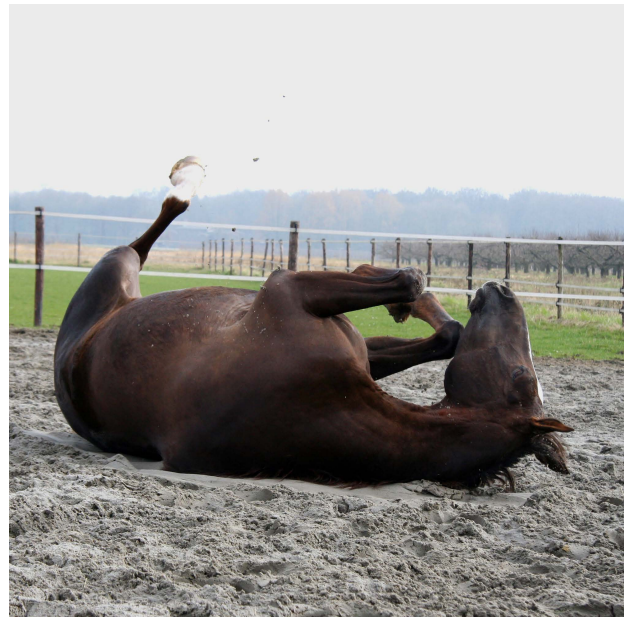
To put it simply probiotics are ‘good’ microbes and bacteria. Fermentation and the break down of grass, hay and other forms of feed are reliant on an excellent GI function; therefore the microbes and bacteria found in probiotics are essential for this to occur.

The fermentation process results in the production of volatile fatty acids that provide an important energy source for the horse. The microbes also produce B vitamins and other nutrients, which are of high importance to the overall health and well-being of the horse. Most importantly the ‘good’ microbes—yeasts, bacteria, protozoa,

Continued

SIDE-BY-SIDE COMPARISON	
PROBIOTICS	PREBIOTICS
A live organism	Food for the live organism
Die due to temperature, acidity, time	Not affected by temperature, acidity, time
‘Used up’ in the stomach and small intestine	Reaches the hind gut

The health of the gastrointestinal tract improves many aspects of health, including wind and colic.



BioEquus™
Supporting the Gut Microbiome

- Contains two Glycoproteins – Glycomax™, Lactoferrin & Glycomax™ Immunoglobulins
- For symptomatic relief of Ulcers
- For the removal of Mycotoxins
- Lactobacillus plantarum may help to relieve intestinal inflammation
- Assists in the management and relief from symptoms of allergies
- Assists in the management of Candida infections. For the treatment and symptomatic relief of pain and discomfort from gastritis
- Helps to reduce the side effects of antibiotic use, and in the occurrence of diarrhoea during and after antibiotic administration
- Helps to restore and maintain health in the digestive system, the bacterial flora and the mucosal function



A high roughage diet is essential to support a healthy Gut Microbiome



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Free advice, solutions that work, get in touch.

Pre and Probiotics continued...

and fungi—keep the ‘bad’ microbes (such as Salmonella and *Clostridium difficile*) from overpopulating the intestines, which may then cause diarrhea and illness.

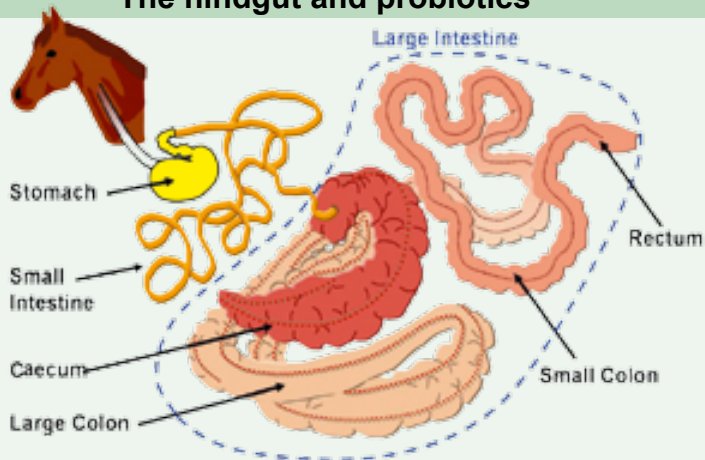
PREBIOTICS

Prebiotics are the foods that feed these good microbes and bacteria. They are food ingredients that stimulate production or activity of the bacteria that live in the horse’s gastrointestinal tract.

Your horse does not digest these food ingredients; they are actually ‘fed’ to the good bugs, and are most commonly carbohydrates—long chains of sugar molecules bound together. Some of the most common prebiotics used in equine supplements include fructooligosaccharides, xylooligosaccharides, polydextrose, mannoooligosaccharides (MOS), galactooligosaccharides, pectin, and psyllium.

These prebiotics are digested by the ‘good’ microorganisms in the horse’s digestive system to increase their numbers or activity. Two of the best known ‘good’ bacteria are *Bifidobacterium bifidum* and *Lactobacillus acidophilus*.

The hindgut and probiotics



After feed travels through the mouth, oesophagus, stomach, and small intestine (the foregut), it travels to the hindgut. The hindgut is sometimes called the large intestine.

The Caecum's naturally-occurring microbial population of bacteria, protozoa, fungi, and yeasts begin the fermentation process needed to digest feed. The caecum's pH is normally neutral, which promotes the good microbes.

The Large and Small Colon: Food normally remains in both the large and small colon for about 48-72 hours. The large colon's microbes process large volumes of fibrous material during the fermentation process. The small colon and rectum dry out the faecal mass as an important part of maintaining hydration in the horse.

PROBIOTICS are the live microorganisms themselves; if administered at sufficient levels, these microorganisms present a health benefit for the horse. To be considered a probiotic, the bacteria included in the supplement must be alive when administered and contain a taxonomically defined microbe(s), including genus, species, and strain; and be safe for the intended use.

Most equine probiotics include *Lactobacillus* and *Bifidobacterium* species of bacteria and/or the yeast *Saccharomyces boulardii*.

Pre- and Probiotics benefit horses in many ways and are used by horse owners and equine health practitioners principally for GI-related conditions (i.e. diarrhoea), to encourage the growth of the good microbes, and to reduce the risk of invasion and growth of disease-causing bacteria.

It is quite well known that antibiotic administration, stress, transport, abrupt dietary changes, and *Clostridium* spp. or *Salmonella* spp. infections can potentially alter the normal microbe population in a horse's large intestine.

Horse owners often administer prebiotics and/or probiotics to horses that are being treated with antibiotics, have developed diarrhoea, are off their feed, are about to travel or are experiencing a stressful event.

The more sophisticated and complex probiotics and prebiotics are only found in the human health industry.

My personal advice is to always keep some form of pro and prebiotics on hand in the fridge and to use them when required, but also use them as a preventative measure. 🐾



BioEquus Gold

www.hiform.com.au/free-diet-analysis-form/

BioEquus Gold is a unique synbiotic that has been specifically formulated to enhance the support of the horses gut microbiome. Highly effective in horses diagnosed with ulcers or prone to digestive conditions such as diarrhea and colic.

Matricaria recutita (chamomile) is traditionally used for numerous gastrointestinal (GI) conditions, including digestive disorders, spasms, colic, upset stomach, flatulence, ulcers and GI irritation. Additionally, research with chamomile has shown it to help with diarrhea.

Curcumin can influence gut microbiota composition, allowing the growth of strains needed to maintain correct host physiologic functions. This is the case of neurodegenerative diseases in which often a gut dysbiosis precedes the onset of the clinical signs. Curcumin has excellent benefits on the intestinal epithelium and immune system and can strengthen the intestinal barrier through a reduction in bacterial translocation and inflammation.

Trigonella foenum-graecum L. seed Fenugreek: There is scientific evidence of galactomannan from fenugreek seeds as a prebiotic that may play an important role in modulating gut flora by acting as substrate to beneficial microbes.