

## **PetBiotics™**

- For symptomatic relief of irritable bowel syndrome
- 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
- BioEquus contains carefully selected probiotics well suited for survival in the conditions of the upper digestive tract - combining prebiotics with probiotics improves the survival and implantation of live probiotics
- Helps maintain normal healthy intestinal immune function and the GI tract

 $\mathsf{BioEquus}^{\mathsf{m}}$  is a powerful combination of prebiotics, probiotics and herbs.

The synergy between prebiotics and probiotics supported by the herbs helps to restore a healthy balance and benefits metabolism in the digestive system. This pleasant tasting formula helps to maintain a healthy bacterial flora and has a beneficial impact on metabolic processes; it reduces putrefactive activity in the gut and protects the mucosal barrier function. The prebiotics confer a competitive advantage for the survival and implantation of these live probiotics over the putrefactive species Clostridia, and also Enterobacteriaceae.

## **Indications**

- For symptomatic relief of irritable bowel syndrome
- Lactobacillus plantarum may help to relieve intestinal inflammation
- Assists in the management and relief from symptoms of allergies
- Assists in the management and removal of Mycotoxins
- For the treatment and symptomatic relief of pain and discomfort from gastritis
- As an aid to colic treatment
- -Helps to reduce the side effects of antibiotic use and the occurrence of diarrhoea during and after antibiotic administration.
- -Helps to restore and maintain both healthy digestive system, a healthy balance of intestinal flora and the healthy barrier function of the gut's mucosa
- BioEquus contains carefully selected probiotics well suited for survival in the conditions of the upper digestive tract-combining prebiotics with probiotics improves the survival and implantation of live probiotics which benefit the health and well-being of the host
- Helps maintain normal healthy intestinal immune function

## Active Ingredients

Each measuring spoon (equiv 5g) of powder contains: Contains

Glycomax ™ High Purity Immunoglobulins replacement for Colostrum

Lactobacillus acidophilus 7.0 Billion CFU

Lactobacillus plantarum 7.0 Billion CFU

Bifi dobacterium longum 1.0 Billion CFU

Aloe barbadensis leaf equiv. extract dry (aloe vera) 10g equiv: aloe polysaccharides 2.5mg

Ulmus rubra stem bark dry 500mg

Peppermint Extract 1000mg

Saccharomyces cerevisiae cell dry 250mg

Selenium (as Selenomethionine .0625mg) 25mcg

Zinc (as amino acid chelate) 10mg

## **Abstract**

**Aims:** to examine *Saccharomyces cerevisae* strains with previously reported beneficial properties and aflatoxin  $B_1$  binding capacity, for their ability to remove ochratoxin A (OTA) and zearalenone (ZEA) and to study the relation between cell wall thickness and detoxificant ability of yeast strains.

Methods and Results: A mycotoxin binding assay at different toxin concentrations and the effect of gastrointestinal conditions on mycotoxin binding were evaluated.

Ultrastructural studies of yeast cells were carried out with transmission electronic microscopy. All tested strains were capable of removing OTA and ZEA. Saccharomyces cerevisiae RC012 and RC016 showed the highest OTA removal percentage, whereas RC009 and RC012 strains showed the highest ZEA removal percentages. The cell diameter/cell wall thickness relation showed a correlation between cell wall amount and mycotoxin removal ability. After exposure to gastrointestinal conditions, a significant increase in mycotoxin binding was observed.

**Conclusions:** All tested *Saccharomyces cerevisiae* strains were able to remove OTA and ZEA and physical adsorption would be the main mechanism involved in ochratoxin A and ZEA removal. Gastrointestinal conditions would enhance adsorption and not decrease mycotoxin-adsorbent interactions.

**Significance and Impact of Study:** Live strains with mycotoxin binding ability and beneficial properties are potential probiotics that could be included in animal feed. Previous and present results suggest that the RC008 and RC016 strains are very promising candidates for functional feed product development

