

HINDGUT HEALTH WITH



It's hard not to notice these days, but there are many digestive supplements for horses on the market, and it's one of the hottest topics around currently. They're a common additive to feed products and most, though not all, are in the form of yeast probiotics and prebiotics. For the Fibregenix formulations, we sourced those with the most robust scientific research and data behind them. After all, your horse is precious to you - so it makes sense to ensure he's getting the maximum benefit to keep him in the peak of health.

In the world of functional ingredients, our gut health and digestive enhancer packs are at the top of their game.

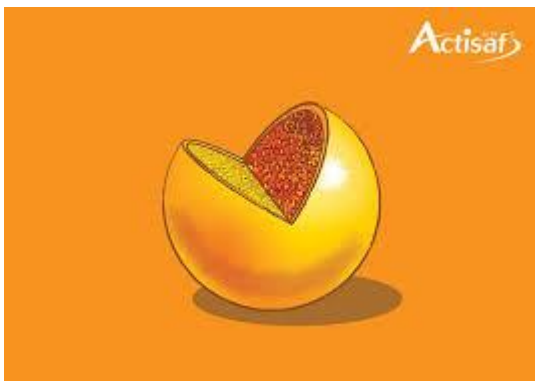
WHAT ARE PROBIOTIC YEASTS?

The idea behind adding a live probiotic yeast to a horse's diet is to help improve fibre digestibility. However it's the specific strain of yeast culture and the level included that differentiates one from another. Live probiotic yeasts contain a thick cell wall which allows them to travel through the horse's digestive tract to the large intestine where they are utilized and then excreted. They require daily supplementation to ensure they are replenished in the large intestine. The key role they play is to help promote the production of bacteria which digest cellulose in the horse's hindgut.



GOOD, BETTER, BEST...

Some probiotics are average, some good and some are very, very good. The effectiveness of a live yeast probiotic is dependent on how many yeast cells make it to the intestine intact and alive. The best probiotics have a special coating that protects them through the manufacturing process, and their transit through the foregut to the hindgut. Fibregenix contains Actisaf® which has the best data set for horses compared to all others. It's recognised in over 100 countries as THE benchmark for live probiotic yeast. Each micro-spherule contains over 40 million live yeast organisms and is highly resistant to the various steps involved in the feed manufacture.

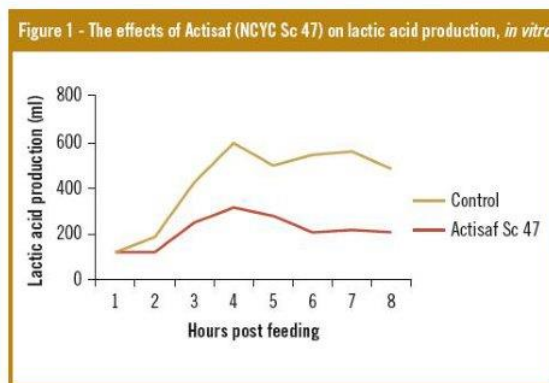


HOW DOES ACTISAF PROBIOTIC YEAST HELP MY HORSE?

Horses have evolved as hindgut fermenters, consuming small, fibre-rich meals on a continual basis. They ferment fibre in the diet at the end of the digestive system – the caecum and colon. Today's modern horse is often fed a high starch diet which is difficult to digest. This is because horses don't produce large quantities of amylase, an enzyme that breaks down starch into glucose. If a horse is

fed small, starch rich meals, it's unlikely that there will be any consequences. However, if large quantities of starch are fed in any one meal, this is pushed through the gut with increasing speed. Without having been broken down sufficiently by saliva or gastric juices, starch then reaches the caecum. Here, it is fermented by bacteria that produce lactic acid rather than the beneficial volatile fatty acids produced from the fermentation of fibre.

When lactic acid is produced, the PH levels in the hindgut drop. This is known as a state of hindgut acidosis, resulting in many potential health issues. The low PH effectively kills off good bacteria that would normally digest fibre. This can then lead to complications such as colic, caecal and colonic ulcers and laminitis. Many studies have been conducted looking at the effects of Actisaf Yeast. They have found that supplementation with the live yeast not only increases fibre digestibility but also reduces lactic acid accumulation. Furthermore, it maintains a more stable PH within the normal range (around 7), which in turn improves both the health and welfare of the horse.



MOS – WHAT IS IT?

MOS is short for mannanoligosaccharides. There are many different MOS products. Some are just crude cell wall preparations made from yeast left over yeast extract (the inside of the yeast). Some are just ground, dried brewer's yeast. These are cheap and cheerful with little or no data to support their use. They are classified as feed ingredients, not additives, with no licensing required.

The most effective and reliable MOS products are licenced and manufactured specifically for the feed industry. Safmannan MOS found in Fibregenix is tested for its bacterial binding capacity as part of the quality control process.

HOW DO THEY WORK AND BENEFIT THE HORSE?

Safmannan MOS work by mimicking sites on the gut wall that pathogenic bacteria bind to. Once bound to the MOS they are rendered useless and are flushed out of the gut. MOS also facilitates the immune system helping to provide support against infections. MOS products aren't always necessary if your horse has a healthy gut environment. However, today's modern competition horse is placed under a lot of stress. Recovery from illness, training, travelling, competing, large amounts of hard feed. These horses will benefit from the inclusion of the Safmannan MOS in their diet.

FOS PREBIOTIC –WHAT IS IT?

FOS stands for fructo-oligosaccharide. This specific prebiotic serves as an energy source for the beneficial bacteria already living in the horse's hindgut. In turn, this creates a healthier digestive tract, unsuitable for the growth of potentially pathogenic bacteria. Research has shown that harmful bacteria such as E. coli and Clostridium Perfringens cannot utilise FOS. And this means that beneficial species are able to competitively exclude them. FOS seems to be particularly useful when horses are suffering with diarrhoea, presumably because numbers of C. perfringens are reduced.

The specific FOS found in Fibregenix is Profeed™, a unique prebiotic comprising of solely short chained fructo-oligosaccharide.

HOW DOES THIS PARTICULAR FOS BENEFIT THE HORSE?

Scientific support has proven that this specific FOS may:

- ❖ Positively modify the gut microflora
- ❖ Enhance digestive health
- ❖ Reduce the risk of digestive upsets
- ❖ Reduce putrefactive compound production
- ❖ Strengthen the immune system (GALT)
- ❖ Improve insulin sensitivity in the obese horse.

Including both the MOS and FOS in Fibregenix therefore provides a synergistic effect to support foregut and hindgut health.

NUCLEOTIDES – WHAT ARE THEY?

They're the building blocks for RNA and DNA. All feed contains a level of nucleotides. However, these are in extremely low levels, with a very low availability to the horse (around 5-10%). Additionally, they are hard to digest due to their protein coating.

There are very few companies that are giving horse owners the added benefits from feeding Purified Nucleotides to their horses. Fibregenix is the first major feed balancer company in Australia to include them. All 3 Fibregenix feed balancers contain a purified nucleotide supplement which has a 95% availability rate. This supplement balances the limited levels of nucleotides available in the current diet.

For more information on nucleotides, visit our website fibregenix.com.au. Click on the products list where you'll find links to the benefits of nucleotides in the diet.