Animal Prebiotic and Fibre Solutions for Animal Nutrition
The Healy Group is a solutions-driven Food and Feed Ingredient distributor for a number of manufacturers worldwide supplying high quality food ingredients, Animal Nutrition and feed ingredients. Supporting a varied range of industries since 1985, we distribute from our sites in Dublin, Leicestershire and Shanghai. We are committed to providing a quality service, an excellent range of products and unmatched technical solutions to all our customers.
Prebiotics

A Prebiotic is a non-digestible food ingredient that beneficially affects the host by selectively stimulating the growth or activity of a limited number of bacteria in the colon and improves the Host’s Health.

Types of Prebiotics and Psyllium Husk Which Healy Group offer:

- Mannan Oligosaccharide
- Galacto Oligosaccharide
- Fructo Oligosaccharide
- Psyllium Husk – all grades and mesh sizes

The market for prebiotics in pets and animal feed has become increasingly attractive in the last few years, driven by:

- Health perceptions and positive associations with the human probiotics market
- The ban on antimicrobial growth promoters in agriculture
- The willingness to confer the status of ‘extra family members’ to pets
- The need to reduce use of antibiotics in animals due to developing resistance in Humans

Prebiotics have been Scientifically shown to:

- Improve gut microbial ecology
- Enhance stool quality
- Help reduce undesirable odours
- The improvement of bone health
- Enhanced mineral absorption
- Weight management brought about by an increased feeling of satiety.
Research on the benefits of prebiotics is increasing, and the market for these ingredients looks very promising.

Manufacturers of Fructan prebiotics have done a lot of work in describing the effects of including prebiotics such as Fructo-oligosaccharides (FOS) and inulin in companion animals.

The increasing availability of research describing the functional health benefits of other prebiotics like Galacto – Oligosaccharides, Mannan – Oligosaccharides and Fibre in various species is one of the main contributing factors driving the increase in value within this market.

**So what Fibres are available:**

**Fructo Oligosaccharide (FOS)**

Fructo Oligosaccharide (FOS) – Prebiotic, soluble fibre from source of Chicory. This Fibre is proven to promote the growth of Good Gut Bacteria.

**Key Benefits**

- Stimulation of Growth of Good Gut Bacteria
- Beneficial to the absorption and utilisation of Calcium, Phosphorous, Copper, Iron and Manganese
- Source of Dietary Fibre
- Provides Sweet Taste
Mannan Oligosaccharide (MOS)

Mannan oligosaccharides (MOS) are widely used in animal feed to improve gastrointestinal health, energy levels and performance. They are normally obtained from the yeast cell walls of *Saccharomyces cerevisiae*. Research at the University of Illinois has demonstrated that Mannan oligosaccharides differ from other oligosaccharides in that they are not fermentable and their primary mode of actions include agglutination of type-1 fimbriae pathogens and immunomodulation.

**Key Benefits**

- MOS beneficially affects bacterial attachment in the Intestinal Tract
- Stimulation of Growth of Good Gut Bacteria
- Inhibition of growth of Harmful Gut Bacteria Clostridia
- **In Chickens**
  - A reduction in the prevalence and concentration of different strains of salmonella
  - A reduction in the prevalence of Ecoli
- **In Pigs**
  - Significant increase in Colostrum production and Colostrum quality with MOS being incorporated into Sows diet.
  - Those changes in Colostrum quality and quantity likely explain a reduced pre-weaning mortality
  - Higher litter size and litter weight at weaning
  - Improved Immune System - Protecting the piglet from disease, thus improving piglet survival.
- **In Calves**
  - Better growth rates.
  - The health status of young calves is one of the most important factors contributing to growth and performance. Diarrhoea in young calves is a major issue in the dairy sector. The cause can be viral or bacterial; however, *E. Coli* is often involved. As MOS can bind *E. coli* (see Effects of MOS on the intestinal micro flora), it can modify and help to improve the composition of the intestinal micro flora. This resulted in a reduction in faecal *E. coli* counts and improvements in faecal score in
Calves fed MOS. These improvements were coupled with an increase in concentrate (dry feed) intake and better performance

- Improvements in respiratory health,
- Higher live weight gain, similar to that gained with the use of antibiotics, has been achieved following supplementation of milk replacer with MOS
- Dairy cows fed MOS had better immune protection against rotavirus and were able to pass some of this protection on to their calves. The transfer of immunity from the cow to the calves is critical in order to protect the calf from many different diseases.

**Galacto Oligosaccharide (GOS)**

Galacto oligosaccharides (GOSs), which do occur naturally, consist of short chains of Galactose molecules. GOS largely resist hydrolysis by salivary and intestinal digestive enzymes. They reach the end of the intestine virtually intact. The Human intestine contains up to 500 different species of Bacteria which can be divided into Good Gut Bacteria, the likes of Bifidobacteria and Lactobacilli and Harmful Gut Bacteria likes of Clostridia. Most commercially available Galacto-oligosaccharides are produced through the enzymatic conversion of lactose, a component of bovine milk.

**Key Benefits**

- Stimulation of Growth of Good Gut Bacteria
- Inhibition of growth of Harmful Gut Bacteria
- Beneficial to the absorption of Essential Nutrients and Syntheses of certain Vitamins
- Stimulation of Immune Functions
- Reduction in Use of Antibiotics
Psyllium Husk

Psyllium Husk (Seed of the plantain). With associated benefits of Carbohydrate Reduction, Good Gut Health, Improvement to Digestive System and cleansing of the digestive system. Every 100 grams of Psyllium Husk provides 71 grams of Soluble Fibre. A similar amount of Oat Bran contains just 5 Grams. Soluble Fibre has unique effects on our metabolism. Psyllium has been used in and is proven over many years as part of a balanced diet to ease the effects of Irritable Bowel Syndrome. Psyllium provides a feeling of fullness and is very effective and healthy for use in weight control products.

Benefits

- Psyllium has the ability to capture and move sand through the Horse's digestive system
- Valuable Source of Fibre – Good Gut Health
- Anti-Inflammatory properties
- Relieves Constipation
- High in Soluble Fibre

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