THE FODMAP DIET AND PROMITOR® SOLUBLE FIBRE

Popularity of FODMAP (fermentable oligo-, di-, and monosaccharide and polyol) diets has been increasing, especially for consumers concerned with Irritable Bowel Syndrome (IBS) or digestive health[1]. This dietary plan was developed by a team of scientists at Monash University, Australia, who proposed that FODMAPs could cause the symptoms of IBS, and therefore reducing FODMAPs can be beneficial to these patients[4]. One of the shortcomings of the FODMAP diet is that it can often be low in fibre[2]. Therefore, fibre ingredients that are well tolerated and free of FODMAP components would have significant impact. Yet, high levels of some dietary fibres are sometimes associated with gastrointestinal (GI) side effects such as bloating, intestinal noises, cramping, flatus and diarrhoea. These effects are due primarily to the production of gases by fermentation of fibre in the large intestine. In general, smaller molecules (e.g. FOS[3], sorbitol) are more rapidly fermented, and thus more likely to cause side effects. Larger molecules that ferment more slowly (e.g. PROMITOR® Soluble Fibre) are usually better tolerated.

FODMAP dietary plan: Examples of each of these FODMAP groups can be seen in Table 1.

F ermentable
O ligosaccharides
D isaccharides
M onosaccharides
A nd
P olyols

Table 1. Examples of FODMAP restricted dietary components[5]

FODMAP restricted dietary component	Definition	Dietary Examples	Common Food Sources
Oligosaccharides	3 to 10 saccharide units	Inulin FOS GOS	Wheat Onion Garlic Legumes/pulses
Disaccharides	2 saccharide units	Lactose	Milk Soft cheeses Yogurt
Monosaccharides	single saccharide unit	Fructose	Honey Apples HFCS
Polyols	sugar alcohols	Sorbitol Mannitol	Some fruits Some vegetables Artificial sweeteners

The FODMAP dietary plan is two phased. First, the diet consists of a strict reduction of all FODMAP components. This is followed by the second phase where there is reintroduction of specific FODMAPs according to an individual's gastrointestinal tolerance over a period of 2-6 weeks[2,4]

PROMITOR® Soluble Fibre has excellent tolerance. A number of human clinical trials have been conducted to assess gastrointestinal tolerance to PROMITOR® Soluble Fibre and have shown that multiple doses can be consumed several times a day up to 65 grams without significant clinical gastrointestinal symptoms[6-12]. A single dose up to 40 g PROMITOR® Soluble Fibre a day is well tolerated and most individuals will not have noticeable GI side effects[8]. The food matrix and the timing throughout the day of the dose does not seem to impact tolerance. PROMITOR® Soluble Fibre has better overall tolerance than inulin or FOS. In general, smaller molecules (e.g. fructooligosaccharide (FOS), sorbitol) are more osmotic (have the ability to pull water into the intestines) and rapidly fermented, and thus more likely to cause GI side effects. Larger molecules that ferment more slowly and are less osmotic, are usually better tolerated.

Conclusion: PROMITOR® Soluble Fibre can help bridge the fibre intake gap and allow product developers to create FODMAP friendly products because PROMITOR® contains no FODMAP components. Specifically, PROMITOR® Soluble Fibre contains no FOS, GOS, fructose, lactose or polyols.

Contact the Global Nutrition team to learn more about the FODMAP diet and reach out to your sales representative or technical application scientist to learn more about how Tate & Lyle ingredients can be utilized to reduce carbohydrates or calories in your product formulation.

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* These statements should be re-evaluated as novel scientific literature is published.

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