

Product Name: Antidiabetic Wheat+barley-herb beverage mix (DiaLow GI-53)

Wheat is a grass widely cultivated for its seed, a cereal grain which is a worldwide staple food. Wheat is an important source of carbohydrates and major source of starch and energy, wheat also provides substantial amounts of a number of components which are essential or beneficial for health, notably protein, vitamins (notably B vitamins), dietary fiber, and phytochemicals. Wheat, specially the emmer type (*T. turgidum ssp. dicoccum*), used in the present food formulation contributes adequate protein, minerals, fiber and phytochemicals and considering low GI than the other wheat variety. In parts of India, emmer wheat is grown as a drought- and stress-resistant wheat variety and increased interest in this variety due to possible value for diabetics. Barley (*Hordeum vulgare*) belongs to Grass family and major cereal grain grown globally. Barley has been used as animal fodder, as a source of fermentable material for beer and certain distilled beverages, and as a component of various health foods. Barley is an efficient food to prevent and cure many life style disorders. In traditional Indian medicine barley grains are commonly use in practice to cure life style disorder. It's high insoluble fiber content effectively regulates blood sugar levels. Slower absorption of glucose and fat from the intestines results in lower fasting levels and reducing spikes in blood sugar levels after a meal.

Herbs- Harad, Bahera and Indian gooseberry mix is an age old commonly used Ayurvedic powdered preparation in Indian systems of medicine. It is traditionally being used as laxative in chronic constipation, colon cleansing, digestion problems and poor food assimilation. It has also been used to reduce cardiovascular disease, high blood pressure, serum cholesterol, large intestine inflammation, and ulcerative colitis and to improve liver function. Herbs has shown significant antioxidant activity *in vitro*. Oral administration of the extract reduces the blood sugar level in diabetic rats. Ghee and sesame oil is integral part of traditional preparations, helps in transportation and bioavailability of bioactives.

DiaLow (GI-53) can be used as potent antioxidant food, as it is a rich source of bioactives like polyphenols, flavonoids and tannins. It lowers the fat absorption in small intestine as food formulation contains soluble dietary fiber. Hence lowers the risk of heart disease and obesity. DiaLow (GI-53) can be used against laxative in chronic constipation and colon cleansing, digestion problems, poor food assimilation and blood glucose lowering capacity. The mix can provide adequate amount of energy, fat, carbohydrate, and protein. DiaLow (GI-53) helps in regulating blood glucose level by inhibiting carbohydrate metabolizing enzymes

DPP4, α - Amylase and α -Glucosidase and can be used as low glycemic index food product.
Hence, DiaLow (GI-53) can be recommended to manage diabetes.