

What is Barley Balance?

Barley Balance™ is the most concentrated source of barley beta-glucan soluble fiber produced by a natural and sustainable process. Starting with North American waxy, hull-less barley, Barley Balance is made using a proprietary dry milling and separation process that is solvent free, ideal for clean label products.

Barley Balance is a fine light flour that has at least 25% beta-glucan and over 35% total dietary fiber adding superb nutritional benefits and functional performance to food and beverage products.

Health Benefits

This concentrated source of beta-glucan makes it convenient to add this soluble fiber's benefits to a wide array of healthy products. Barley Balance is an ideal fiber ingredient for:

- Lowering cholesterol and making a heart healthy claim
- Promoting a feeling of fullness (satiety)
- Improving glycemic control and balance
- Contributing to colon health by increasing healthy bacteria
- Providing dietary fiber
- Enhancing gastrointestinal health
- Managing and reducing weight

Applications and Uses

Barley Balance can be incorporated into a variety of foods including:



- Breads
- Bagels
- Tortillas
- Cookies
- Cereal
- Snacks
- Crackers
- Nutrition Bars
- Muffins
- Bake Mixes
- Beverages
- Pasta

Heart Health Claim

Products containing Barley Balance are eligible for the US FDA heart health claim, “Diets low in saturated fat and cholesterol that include 3 grams of soluble fiber per day from beta-glucan may reduce the risk of heart disease.” To qualify the product must contain at least 0.75 grams of barley beta-glucan in one serving. (Approximately 3 grams of Barley Balance supplies 0.75 grams beta-glucan). [CFR 101.81]



Clinical Studies

Barley beta-glucan has been studied in dozens of clinical trials for over 25 years.

Cardiovascular Effects, Lipid Metabolism

- Behall, KM., Scholfield, DJ. & Hallfrisch, JG (2004) Lipids significantly reduced by diets containing barley in moderately hypercholesterolemic men, *JACN*
- Behall KM, Scholfield DJ, Hallfrisch J. (2004) Diets containing barley significantly reduce lipids in mildly hypercholesterolemic men and women, *AJCN*
- Smith, KN, Queenan, KM, Thomas, W., Fulcher, RG and Slavin, JL (2008) Physiological Effects of Concentrated Barley β -Glucan in Mildly Hypercholesterolemic Adults, *JACN*

Glucose and Insulin Metabolism, Satiety, and Weight Control

- Maria Cristina Casiraghi, MD, Marcella Garsetti, PhD, Giulio Testolin, MD and Furio Brighenti, MD (2006) Post-Prandial Responses to Cereal Products Enriched with Barley β -Glucan, *JACN*
- Hallfrisch, J.G, Scholfield, D.J, Behall, K.M. (2003) Comparison of Glucose and Insulin Responses to Barley and Oats, *Cereal Chemistry*
- Slavin, JL (2005) Dietary Fiber and Body Weight, *Nutrition*
- Kim, H, Behall, K., Conway, J. (2005) Glycemic Response and Energy Intake after Consumption of Barley Test Meals Varying in the Amount of Beta-glucan, *Cereal Foods World*

Digestive Health

- Lia A, Sundberg B, Aman P, Sandberg AS, Hallmans G, Andersson H. (1996) Substrates available for colonic fermentation from oat, barley and wheat bread diets. A study in ileostomy subjects, *BJN*
- Dongowski G, Huth M, Gebhardt E, Flamme W. (2002) Dietary fiber-rich barley products beneficially affect the intestinal tract of rats. *Journal of Nutrition*

Processing and Functional Advantages

Barley Balance is stable under most common food processing conditions: over a pH range of 3 to 8 with viscosity increasing at lower pH levels; in freezing, thawing and extended frozen storage; in baking or heating.

Barley Balance beta-glucan concentrate mimics the mouthfeel of fat and is an effective fat replacer.

This ingredient also provides an anti-staling advantage in food products, extending freshness and shelf-life.

The information contained herein is to the best of our knowledge, correct. The typical data outlined and the statements herein are intended as a source of general information. No warranties, expressed or implied, are made. It is recommended that this product undergo laboratory evaluations prior to use in a finished product. The information contained herein should not be construed as permission for violation of patent rights.

SB Health Benefits of Barley Balance, Rev. Date 01.23.09

SunOpta Ingredients Group markets and sells Barley Balance™ for its partner PolyCell Technologies.