

## **Glycemic Index Foundation**

## Policy

## Glycemic index testing: Low GI declaration on foods and beverages

- Foods and beverages must be tested and determined to be low GI (≤55.5) in accordance with ISO 26642:2010 (www.iso.org/iso/catalogue\_detail.htm?csnumber=43633) at a Glycemic Index Foundation Accredited Laboratory.
- 2) The Glycemic Index Foundation (GIF) requires companies to measure available carbohydrate directly, not "carbohydrate by difference". Suitable methods are listed in Table 1.
- 3) If the GI test result for a food or beverage is between 50 55.5 on the glucose scale, GIF requires re-testing every 2 years.
- 4) For labelling purposes, the most recently tested GI value is preferred. However, pooling of all test data from the same food or beverage, with the same formulation and processing procedure is permitted to obtain an average GI value. Data from reformulated products, where the primary source(s) of carbohydrate have been substituted, or different cultivars utilised, must not be included. If the macronutrient composition (% (g/100g) fat, protein, carbohydrate, fibre) has changed by more than 1.5% point, the product is considered to have been reformulated.
- 5) If the product has been re-tested over an extended time period (~10 years), pooling of data is permitted if the testing methodology has not changed appreciably during that time frame.
- 6) Pooled data sets must include previous outliers. Any resulting new outliers (>2 standard deviations above or below the mean) should be identified and excluded from the final average value.
- 7) If a pooled result is 55.5, GIF, at its discretion, may require GI testing in an additional 5 people.
- 8) A company must provide any required information, co-operation and assistance to enable GIF to satisfy itself that the product will remain low GI at the time of supply to the end consumer.

| FOOD   | MEASURED CARBOHYDRATE                     | AOAC CODE         |
|--|---|-------------------|
| In General   | trace glucose and fructose                | 2000.17-2003      |
|  | total reducing sugars                     | 945.66-1945       |
|  | arabinose, galactose, xylose, other sugar | 950.57-1950       |
| Animal Feed  | starch                                    | 920.40-1920       |
|  | sugars                                    | 974.06-1975       |
| Baking Powders   | starch                                    | 920.44-1920       |
| Beer   | carbohydrate                              | 979.06-1980       |
|  | sugars (reducing)                         | 920.51-192        |
| Beet   | sucrose                                   | 942.20-1942       |
| Bread  | sugars                                    | 975.14-1975       |
| Brewing Sugars   | starch                                    | 945.25-1945       |
|  | sugars (total reducing)                   | 945.29-1945       |
| Cacao Products   | starch                                    | 920.83-1974       |
|  | starch                                    | 920.84-1920(1996) |
|  | sucrose                                   | 920.82-1920       |
|  | glucose                                   | 936.06-1936(1996) |
|  | glucose                                   | 938.18-1938       |
| Canned Vegetables  | sugars                                    | 925.52-1925       |
| Cereal And Food Products Not Containing Resistant Starch, D-Glucose    | starch                                    | 996.11            |
| And/Or Maltodextrins   |   |                   |
| <b>Cereal</b> And Food Products To Samples Containing More Than 2% W/W | non-resistant and resistant starch        | 2002.02 - 2005    |
| RS   |   |                   |
| Coffee   |   |                   |
| Roasted  | starch                                    | 920.101-1920      |
| Roasted  | sugars                                    | 925.15-1925       |
| Soluble (Instant)  | carbohydrates                             | 995.13-1995(2000) |
| Confectionery  | starch                                    | 925.50-1925       |
| Flour  | sugars (reducing and non-reducing)        | 939.03-1939       |
|  | starch                                    | 945.37-1945       |
| Food Dressings   | starch                                    | 950.55-1950       |
| Frozen Concentrated Orange Juice                                       | sugar-beet-derived syrups                 | 992.09-1997       |
| Fruit Juice  | beet sugars                               | 995.17-1998       |

## Table 1: AOAC methods for measuring available carbohydrate

| Fruit Juices            | carbohydrates                       | 971.18-1980       |
|-------------------------|-------------------------------------|-------------------|
| Fruits & Fruit Products | starch                              | 925.38-1925       |
|                         | reducing sugars                     | 925.36-1925       |
|                         | sucrose                             | 925.35-1925       |
|                         | glucose (commercial)                | 925.37-1925       |
|                         | carbohydrates                       | 971.18-1980       |
| Honey                   | fructose, glucose, sucrose          | 977.20            |
|                         | sugars (reducing)                   | 920.183           |
|                         | sucrose                             | 920.184           |
| Licorice Extracts       | sugars                              | 984.17-1992       |
| Maple Syrup             | corn syrup and cane sugar           | 984.23-1988       |
|                         | beet or cane sugar                  | 2000.19-2000      |
|                         | sugars (reducing) as invert         | 920.190-1920      |
| Meat                    | starchy flour                       | 935.49-1935       |
|                         | starch                              | 958.06-1960       |
| Milk                    | lactose                             | 896.01-1896       |
| Molasses                | total sugars                        | 968.28,1969(2000) |
|                         | invert sugar                        | 970.58-1970(2000) |
| (Cane And Beet)         | sugars                              | 996.04-2003       |
| Mustard                 | starch                              | 940.30-1940(1996) |
| Nonalcoholic Beverages  | sucrose                             | 950.29-1950       |
|                         | saccharin                           | 934.04-1934       |
| Nuts & Nut Producst     | reducing sugars                     | 950.50-1950       |
| Peanut Butter           | starch                              | 954.08-1954(1996) |
| Plants                  | sugars                              | 931.02-1931       |
|                         | reducing sugars                     | 906.01-1906       |
|                         | starch                              | 948.02-1962       |
| Presweetened Cereals    | glucose, fructose, sucrose, maltose | 982.14-1983       |
| Spices                  | starch                              | 920.168-1920      |
| Sugars And Syrups       | invert sugar                        | 906.03-1906       |
|                         | invert sugar                        | 945.60-1945       |
|                         | invert sugar                        | 955.36-1955       |
|                         | invert sugar                        | 923.09-1923       |

|      | sucrose               | 925.46-1925(1970) |
|------|-----------------------|-------------------|
|      | sucrose               | 896.02-1970       |
|      | sucrose and raffinose | 926.14-1970       |
|      | glucose               | 935.62-1935       |
|      | glucose               | 959.11-1960       |
|      | fructose              | 932.15-1932       |
|      | fructose              | 935.63-1935       |
|      | maltose               | 935.64-1935       |
|      | lactose               | 935.65-1935       |
| Wine | glucose               | 920.66-1920       |