



NutraSweet® in Fruit Applications

ADVANTAGES OF NUTRASWEET® IN FRUIT APPLICATIONS

A variety of reduced or no added sugar fruit applications can easily be formulated with NutraSweet® brand sweetener.[§] Not only does NutraSweet have a good, sweet taste, it also extends natural fruit flavors. In addition, cost savings based on sweetness equivalency can be achieved when NutraSweet is used to replace some or all of the sugar. The net result can be good-tasting products that appeal to health-conscious consumers.

NutraSweet® brand sweetener, generically known as aspartame, is a high-potency sweetener manufactured and marketed by The NutraSweet Company. Aspartame is the methyl ester of the dipeptide L-aspartyl-L-phenylalanine. Its components are identical to those that occur naturally in many common foods.

NutraSweet® brand sweetener consistently meets or exceeds Food Chemical Codex (current edition) and USP/NF Standards for aspartame. The foundation for the high quality of NutraSweet lies in the many years of experience that The NutraSweet Company has in aspartame production. With this experience come technical expertise and ample production capacity to ensure customers a steady supply of high-quality product at competitive prices. In addition, ongoing efforts of the R&D staff focus on providing product formulation guidance to food and beverage manufacturers.

In numerous sensory studies, NutraSweet® brand sweetener has been shown to have a flavor and taste profile that is comparable to sugar. NutraSweet can also extend and complement flavors. Internal sensory studies of fruit preparations used in yogurt and fruit pie filling have demonstrated that products formulated with NutraSweet exhibit more fruit flavor.

[§] It is best to consult with a regulatory or legal consultant to determine the appropriate claims and final labeling requirements for your products.

WORKING WITH NUTRASWEET® IN FRUIT APPLICATIONS

NutraSweet® brand sweetener can be used in standard manufacturing processes for reduced or no added sugar fruit-based products.[§] It is available in several forms: powder, granular, liquid, and blended with other commonly used food ingredients. During the manufacture of fruit applications, the dissolution properties of NutraSweet® Custom Granular 60™ and Liquid 50™ offer some advantages because less mixing is required and fruit integrity is maintained.

When working with fruit formulations containing low soluble solids, ingredient and processing variables may change.

- In fruit spreads, use low methoxyl pectin or low methoxyl pectin in combination with gums such as locust bean gum and/or carrageenan.
- When using low methoxyl pectin, calcium ions in an appropriate pH are necessary for gelling.
- In applications such as pie filling and fruit variegates, use appropriate gelling agent for high heat or freeze-thaw stability.
- For bulking and stabilizing, use modified food starches, sorbitol, or maltitol syrups.

Setting times and temperatures may also vary when sugar is replaced and total solids are reduced. The stability of NutraSweet can be enhanced when it is added toward the end of processing with other flavoring and coloring ingredients. Suggested use levels for NutraSweet are listed in Table 1.

TABLE 1. SUGGESTED USE LEVELS FOR NUTRASWEET® BRAND SWEETENER IN FRUIT APPLICATIONS

Product	Percent NutraSweet®
Spreads	0.12 - 0.25.
Fruit Preparations (for yogurt)	0.25 - 0.35
Pie Filling	0.10 - 0.20
Fruit Variegate	0.10 - 0.20
Fruit Syrup	0.20 - 0.25

As a dry ingredient, the stability of NutraSweet® brand sweetener is excellent. When used in fruit-based products, shelf-stability is influenced by pH, time, and storage temperature. At room temperature, appropriate sweetness levels are maintained, as evidenced by successful commercially available fruit spreads. When refrigerated or frozen, minimal loss of NutraSweet occurs, thus ensuring good sweetness levels in products such as fruit preparations for yogurt and fruit variegates in ice cream.

NUTRITION/HEALTH ASPECTS

Depending on product formulation, fruit applications made with NutraSweet® brand sweetener may qualify for sugar-free, no sugar added, or light labeling claims. Substantial calorie and sugar reductions are possible. However, it is best to consult with a regulatory or legal consultant to determine the appropriate claims and final labeling requirements for your product.

Products containing NutraSweet provide variety and choices for those with special diet concerns. Individuals with diabetes or with weight control problems generally find the use of products made with NutraSweet a useful adjunct to their basic diet. Research has shown that aspartame does not interfere with blood glucose control in diabetics, making it an acceptable sweetener. However, the total caloric condition of products containing NutraSweet must be considered a part of the total daily diet. Manufacturers concerned with conveying comprehensive information for those on special diets can include diet exchange guidance on the label.

MORE INFORMATION IS AVAILABLE TO YOU

This bulletin is intended to be general in nature. We are eager to work with you in the development of new products and processes. For additional information about our products, please call **1-800-323-5321 (USA/Canada)**

The NutraSweet Company
P.O. Box 2986
Chicago, IL 60654

Visit our website at
www.nutrasweet.com



The information contained herein is, to our best knowledge, true and accurate, but all recommendations or suggestions are made without guarantee, since we can neither anticipate nor control the different conditions under which this information and our products are used. Each manufacturer should evaluate the nutrient content of their final products to determine compliance with FDA food labeling regulations when making nutrient claims. Further, The NutraSweet Company disclaims all liability with regard to its customers' infringement of third party patents. We recommend that our customers apply for licenses under any relevant patents. No statement herein or by our employees shall be construed to imply the nonexistence of relevant patents nor as a recommendation or inducement to infringe said patents. It is our policy, however, to assist our customers and to help in the solution of particular problems that may arise in connection with applications of our products. NutraSweet® and the NutraSweet symbol are registered trademarks of NutraSweet Property Holdings, Inc. ©2000 NutraSweet Property Holdings, Inc. All Rights Reserved.

Publication date: 02Sept2003
Bulletin no. AG-AO-03-007