



(72) PALMER, Kenneth L., US

(72) FRANKE, Caroline M., US

(71) GENERAL MILLS, INC., US

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(54) **MELANGE SEC POUR PRODUITS DE PATISSERIE**

**COMPRENANT DE LA GOMME GELLANE, ET METHODE
DE PREPARATION CONNEXE**

(54) **DRY MIX FOR BAKED GOODS WITH GELLAN GUM AND
METHOD OF PREPARATION**

(57) Mélanges secs servant à préparer des produits de boulangerie, en particulier des gâteaux au chocolat et aux noix. Les mélanges secs comprennent de la farine, du sucre, du sel, du levain et, optionnellement, du shortening et du cacao. Les mélanges comprennent en outre des quantités précises de gomme gellane. De façon surprenante, l'inclusion de gomme gellane dans les mélanges secs en question permet aux consommateurs d'obtenir des produits de boulangerie de qualité supérieure sur les plans de la structure, du volume et de la texture.

(57) Disclosed are dry culinary mixes for use in preparing baked goods, especially brownies. The dry mixes employ blends of flour, sugar, salt, leavening, and optionally, shortening and cocoa. The dry mixes further include particular levels of gellan. Surprisingly, inclusion of gellan in the present dry mixes enables consumers to bake a finished baked good of superior quality in terms of structure, volume, and texture.

DRY MIX FOR BAKED GOODS WITH GELLAN
GUM AND METHOD OF PREPARATION

ABSTRACT

Disclosed are dry culinary mixes for use in preparing baked goods, especially brownies. The dry mixes employ blends of flour, sugar, salt, leavening, and optionally, shortening and cocoa. The dry mixes further include particular levels of gellan. Surprisingly, inclusion of gellan in the present dry mixes enables consumers to bake a finished baked good of superior quality in terms of structure, volume, and texture.

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DRY MIX FOR BAKED GOODS WITH GELLAN
GUM AND METHOD OF PREPARATION

FIELD OF THE INVENTION

This invention relates to food products and
5 particularly to improved dry culinary mixes for brownies.
More particularly, the present invention relates to the
addition to such mixes of gellan gum in small but
effective quantities to materially improve important
characteristics of the finished baked goods obtained from
10 such mixes.

BACKGROUND

The use of prepared mixes has greatly simplified the
task of preparing baked goods, particularly higher
sugar/low water sweet baked goods such as brownies,
15 cookies, some types of cakes, and the like. To prepare
these mixes for use, the aqueous ingredients such as
water, milk, or eggs are added to the mix and stirred to
form an homogeneous batter. This batter is then baked to
produce a final product. The use of such mixes avoids
20 the problem of assembling the various ingredients,
measuring the desired quantities, and mixing them in
specified proportions.

Brownies are a very popular snack food and dessert.
Traditional brownies are a particularly delectable baked
25 dessert in view of their rich chocolate flavor, chewy
texture and mouth feel due to high fat content. A
quality brownie has a uniform texture, generally fudgy
to cake-like. Further, a quality brownie has a moist

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texture provided in part by high fat levels. While such products continue to enjoy widespread appeal, current consumer trends favor low fat products which nonetheless exhibit similar eating qualities.

5 The present invention provides improved dry mix compositions, methods for the preparation of baked goods and superior finished baked goods, especially brownies. Unexpectedly, multiple end product quality attributes are dramatically improved by formulating dry mixes comprising
10 particular levels of gellan gum. The present dry mixes provide finished baked goods having a unique moist texture, advantages in increased tolerance to variations in oven temperatures, and tolerance to variations in liquids addition. The finished baked good has a less
15 sticky texture. The invention finds particular suitability for use in the provision of low fat baked goods, especially brownies.

 In preferred embodiments, the present dry mixes essentially comprise gellan gum. Selection and
20 utilization of gellan gum provides the novel finished baked goods characteristics as well as providing the numerous advantages of the present invention.

 Selection and employment of gellan gum for use in a dry mix is surprising. Previously, gellan gum had been
25 known for use only in high or at least intermediate moisture products rather than in dry products such as the present dry mixes. Also, it was thought that gellan gum was required to be hydrated for extended times for use. Moreover, gellan gum is a gelling type of gum rather than
30 a thickening agent.

 In view of the state of the art, there is a continuing need for new and useful dry mixes for baked goods that can be used to prepare finished baked goods exhibiting new and desirable textures. Accordingly, it
35 is an object of the present invention to provide dry

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mixes for the preparation of finished baked goods with novel textures.

It is an object of the present invention to overcome the above-noted deficiencies in the prior art.

5 It is another object of the present invention to provide a method for controlling the texture of high sugar, relatively low moisture flour-based products, such as brownies, baked in a conventional, convection, or microwave oven.

10 Surprisingly, the above objectives can be realized and superior dry mixes for the preparation of baked goods can be obtained. The present dry mixes comprise conventional dry mix ingredients at conventional levels wherein the dry mixes additionally comprise 0.01 to 0.2%
15 gellan gum.

SUMMARY OF THE INVENTION

In its product aspect, the present invention relates to improved dry culinary mixes which provide improved finished baked goods, especially brownies. In its
20 article aspects, the present invention resides in improved batters and in baked goods prepared therefrom, e.g., brownies, that exhibit a unique moist texture.

Improvements occur in the areas of chocolate flavor display, texture, tolerance to underbaking, eating
25 quality, tolerance to recipe variation and moisture retention.

The present baked goods are made from dry culinary mixes that comprise from about 20 to 60% by weight of the dry mix of wheat flour and from about 25 to 70% by weight
30 of sugar. The sugar to flour ratio in the dry mix ranges from about 0.2:1 to 3.5:1. The present dry mixes additionally comprise from about 0 to 5% by weight of emulsifiers, from about 0 to 20% shortening and from about 0 to 4% of a chemical leavening agent. The present
35 dry culinary mixes also essentially comprise from about 0.01 to 0.2% by weight of gellan gum.

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The finished baked goods comprise from about 60 to about 93% of the mix, from about 0 to about 6% egg solids, from about 0 to about 18% oil, shortening, butter or spread, and from about 5 to about 20% water.

5 In one method aspect, the present invention embraces methods for improving batters for baked goods and to methods for baking baked goods. The present methods for improving batters for baked goods comprise the steps of: A. fortifying a dry batter mix with from about 0.01 to 1%
10 by weight (solids basis) of gellan gum; B. forming a gellan fortified batter by admixing sufficient amounts of moisture to the dry mix to form a gellan fortified batter having a moisture content of about 10 to 50%. The methods for forming finished baked goods additionally
15 comprise the step of: C. baking the gellan fortified batter to form a gellan containing baked good.

DETAILED DESCRIPTION OF THE INVENTION

The improved dry mixes for baked goods of the present invention produce finished baked goods,
20 especially brownies, that exhibit a unique moist texture. The dry mixes essentially comprise flour, sugar, color/flavoring materials and gellan gum. Each of these ingredients, as well as optional components and dry mix composition preparation and use, and the present baking
25 methods are discussed in detail below.

Throughout the specification and claims, percentages and ratios are by weight and temperatures are in degrees Fahrenheit, unless otherwise indicated.

A. Flour

30 The present dry mix compositions essentially contain from about 15 to 60% of the dry mix of flour. The flour(s) useful in the dry mixes of the present invention can be of conventional type and quality including cake flour, bread flour and all-purpose flour, depending in
35 important part upon the particular desired finished baked good to be prepared. Wheat flours are preferred but

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other flours conventionally used in the preparation of baked goods can also be employed in full or partial substitution for the wheat flour. Traditional cake flour used for layer cakes has about 8% or less protein by weight of the flour. Pastry flour ordinarily has a protein level of about 10%. Other flours such as bread flour generally have higher protein levels of about 11 to 13% by weight. The preferred protein range for the wheat flour useful in this invention is between about 9 to 10% by weight of the flour. A good general all-purpose flour also can be used. Such all-purpose flour generally comprises a mixture of both hard and soft wheat flours, i.e., both high protein level and low protein level flours. Such flours are useful if the average protein content ranges from about 8 to 10% by weight.

Both unchlorinated flours, and preferably chlorinated flour, can be used herein. Chlorinated flours are preferred where permitted by law due to the improved baking qualities of such flours, especially in the provision of layer cake and other high baker's ratio baked goods. Where unchlorinated flours are not permitted for use, flour that has been heat treated to increase its baking properties can be used in substitution for chlorinated flour. Also, the dry mixes can be supplemented with an added starch ingredient, e.g., corn and/or wheat starch (1 to 15%).

Preferred flour levels in the dry mixes of the present invention within the above described broad range depend importantly upon the finished baked good product desired. Particular flour ranges for dry mixes will also depend upon the presence or absence of such supplemental dry mix ingredients as leavening, emulsifiers and shortening.

Preferred herein for the provision of brownies as the finished baked goods, are dried mixes that contain about 15 to 40% flour.

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For layer cakes, dry mixes herein preferably contain about 20 to 50% flour, and for best results about 35 to 45% flour.

B. Sugar

5 The dry culinary mix compositions of the present invention also essentially comprise from about 25 to 70% of a sugar or nutritive carbohydrate sweetener ingredient. Typically, sucrose is used in mixes for baked goods as the sugar ingredient, although up to about
10 30% of the sugar in the present dry mix can be supplied by dextrose or by other nutritive carbohydrate sweetening agents, e.g., corn syrup solids. Commercially available milled sugar usually contains up to about 4% starch as an aid to maintaining its free-flowing properties.

15 Ordinary granulated sugars are satisfactory for use in the dry mix. These include sucrose, dextrose, maltose, fructose, lactose, brown and invert sugars, alone or in combination. The preferred sugar is sucrose.

 In a preferred embodiment, a substantial portion of
20 the sugar ingredient is finely ground. Better results are achieved when at least 50% by weight of the sugar component has an average particle size of 50 microns or below. The remainder of the sugar component can be supplied by conventional granulated sugar.

25 The particular sugar content and its ratio to flour level for dry mixes also are influenced primarily by the finished baked good desired.

 The baker's ratio is the weight ratio of sugar to flour. The baker's ratio is used to provide desired
30 baked good attributes. The baker's ratio of the dry mixes herein can range broadly from about 0.2:1 to 3.5:1. Low ratio dry mixes, i.e., an excess of flour, have long been preferred for muffins for their texture and other eating qualities. Dry mixes for brownies can have high
35 baker's ratio ranging from about 1.5:1 to 3.5:1, preferably about 2.0 to 1.0 and for best results about

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2.5 to 1.0. Dry mixes for layer cakes can have a baker's ratio ranging from about 0.9:1 to 1.8:1.

Preferred dry mixes for brownies herein comprise about 50 to 65% of the sugar ingredient and for best results about 59 to 62%. Preferred dry mixes for layer cakes comprise about 20 to 70% of the sugar ingredient and for best results about 40 to 55%.

C. Shortening Component

The present dry mix compositions can also comprise from about 0 to 20% of a shortening ingredient. A shortening component adds richness to the eating properties of the finished baked goods.

In certain embodiments, the present dry mixes provide finished baked goods that are low or even free of an added shortening ingredient. In those embodiments, shortening is either not included in the dry mix or used at levels only required to function as a carrier for the emulsifier ingredient described below, that is from about 0 to 5%.

Preferably, the present dry mix compositions are fat bearing embodiments that additionally comprise from about 1% to about 15% of the shortening ingredient. Better results are obtained with shortening levels ranging from about 4 to 15%. Best results are obtained when the shortening component comprises about 4 to 8% of the present dry mix compositions. Maintenance of shortening concentrations within these limits is important for the realization of dry mixes in the form of free-flowing particles. Such concentrations are also important in providing baked goods of acceptable textural quality.

Conventional shortening materials are suitable for use as the shortening ingredient of the present dry mixes. Such conventional shortening materials are well known in the culinary mix preparation art. The conventional shortenings useful herein are fatty glyceridic materials which can be classified on the basis

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of their physical state at room temperature. Liquid shortenings can be used in the present dry mix compositions and provide the advantage of ease of incorporation into dry mixes. Solid shortening can also
5 be used and provides the advantage of desirable mouth feel upon cake consumption. More commonly, and preferred for use herein, mixtures of liquid and solid shortenings are used in dry mixes. Such mixes can be fluid or plastic depending in part upon the level of solid fatty
10 materials. Shortenings of this type comprise a liquid oil containing from about 2 to 26% normally solid fatty glycerides. That is, a solids content index ("SCI") at 70° and 4 to 6% at 100°F.

The solid fatty glycerides can include fatty mono-
15 glycerides and diglycerides of saturated fatty acids having 16 to 22 carbon atoms. The liquid shortening can be animal, vegetable or synthetic oil (e.g., sucrose polyesters) which is liquid at ordinary room temperatures. Representative of such liquid shortenings
20 are coconut oil, palm kernel oil, cottonseed oil, peanut oil, olive oil, sunflower seed oil, sesame seed oil, corn oil, safflower oil, poppy seed oil, soybean oil, canola (rapeseed) oil, babassue oil and the like. Other suitable shortening materials and methods of shortening
25 preparation are described in detail in Bailey, "Industrial Oil and Fat Products," (3rd ed. 1964) which is incorporated herein by reference.

Mixtures of the above oils can also be used herein as can solid fatty materials, such as saturated
30 triglyceride fats. In general, from about 1.5 to 25% of triglycerides which are solid at 70°F. can be added to a liquid oil.

The preferred oils are soybean oil hydrogenated to an iodine value (IV) of from about 105 to 115, preferably
35 about 107, corn oil, palm oil, hydrogenated palm oil, lard and tallow oils. Preferably the oils used to

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prepare the shortening composition will contain only from about 1 to 7% hardstock. Hardstock is an hydrogenated triglyceride having an iodine value of 8 or less. Preferred hardstocks are hydrogenated soybean oil, hydrogenated cottonseed oil, hydrogenated palm oil and hydrogenated lard or tallow.

Frequently, the shortening ingredient of the present mixes is emulsified. That is, the shortenings provide a convenient carrier for addition of emulsifiers to the dry mix. Such emulsifiers aid the realization of baked goods with improved grain structure and texture. The emulsifier typically comprises from about 1 to 20% of the shortening component, preferably from about 5 to 15% and, most preferably from about 10 to 15%.

The exact amount of emulsifier used is determined by the particular emulsifier employed and specific desired finished baked goods attributes. The art is replete with emulsifiers which are suitable for inclusion in the shortening component for the provision of dry mixes for baked goods. Thus, selection of particular emulsifiers will pose no problems for the skilled artisan.

In fat free or low fat embodiments, the emulsifier(s) can comprise about 0 to 4% of the dry mix, preferably about 1 to 3%.

Generally useful as the emulsifier component of the shortening ingredient are partially esterified polyhydric compounds having surface active properties. This class of emulsifiers includes among others, mono- and diglycerides of fatty acids, such as monopalmitin, monostearin, monoolein, and dipalmitin; partial fatty esters of glycols, such as propylene glycol monostearate and monobehenate; higher fatty acid esters of sugars, such as the partial palmitic and oleic acid esters of sucrose; and phosphoric and sulfuric acid esters, such as dodecyl-glyceryl ether sulfate and monostearin phosphate. Other examples include the partial esters of hydroxy

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carboxylic acids, such as lactic, citric, and tartaric acids with polyhydric compounds, for example, glyceryl lacto-palmitate, and the polyoxyethylene ethers of fatty esters of polyhydric alcohols, such as a polyoxyethylene ether of sorbitan monostearate or distearate. Fatty acids
5 alone or esterified with a hydroxy carboxylic acid, e.g., stearyl-2-lactylate, are also useful.

D. Cocoa

While the invention is specifically described in terms of improved brownies, other baked goods within the
10 scope of this invention include bar cookies and chewy granola or snack bars. Also, the dry mixes can be used for layer cake and muffins. Brownies include both chocolate-flavored brownies and vanilla-flavored
15 brownies, also known in the baked goods art as "blondies." When blondies are made, vanilla is substituted for cocoa in the dry mix. These vanilla-flavored brownies usually contain added chocolate chips or butterscotch or other flavored chips.

20 Chocolate brownies generally will contain from about 2 to 12% cocoa, preferably about 5 to 10%, and for best results about 7 to 8%.

Dry mixes for chocolate layer cakes generally will contain 2 to 10% cocoa, preferably about 4 to 8%.

25 The cocoa used in this invention is either natural or "Dutched" chocolate from which a substantial portion of the fat or cocoa butter has been expressed or removed by solvent extraction, by pressing, or by other means. Cocoa suitable for use in the process of this invention
30 may contain from 1 to 30% fatty constituents.

Dutched chocolate is prepared by treating cocoa nibs with an alkali material such as potassium carbonate in a manner well known in the art. Generally, it tends to have a darker color and also can be more flavorful than
35 natural cocoas.

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Chocolate can be used in practicing the process of this invention and it is intended, therefore, that chocolate, as described above, is to be encompassed by the term "cocoa." When chocolate is used, it should be
5 in a finely divided form. It may be necessary to reduce the amount of shortening in the mix when chocolate is used because of the additional fat present as cocoa butter. It may also be necessary to add larger amounts of chocolate as compared to cocoa in order to provide an
10 equivalent amount of flavoring and coloring.

E. Chemical Leavening Agent

The present dry mixes can also comprise about 0 to 4% of a chemical leavening agent. Preferably, the chemical leavening comprises from about 0.1 to 3% of the
15 present dry mixes, preferably from about 1 to 3% of the dry mixes.

In the broadest aspects, any general chemical leavening or system can be employed in the formulation of culinary dry mixes for baked goods. In general, such
20 systems are composed of a baking soda, e.g., sodium, potassium, or ammonium bicarbonate, etc., as a source of carbon dioxide on one hand, and one or more other common baking acids on the other. In conventional culinary mixes formulated for oven baking of muffin mixes, the
25 preferred chemical leavening system includes any baking soda and a mixture of baking acids. The baking acid mixture typically comprises a first, slow-reacting baking acid and a second, fast-reacting baking acid. Exemplary useful acids are selected from the group consisting of
30 citric acid, lactic acid, acetic acid, propionic acid, cream of tartar, monocalcium phosphate monohydrate, fast acting sodium acid pyrophosphate and mixtures thereof. The preferred acid is monocalcium phosphate monohydrate. The weight ratio of the baking acid to the baking soda is
35 about 0.75:1 to 1.25:1, preferably about 1:1.

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Preferred dried mixes for brownies herein provide finished brownie baked goods having a thick, chewy texture, but does not require a leavening agent. If present, the leavening system can comprise about 0.1 to 5 4% of the dry mix.

Dry mixes for layer cakes, preferably additionally include a leavening system. In those dry mixes for layer cakes, the dry mixes preferably comprise about 1 to 4% of the leavening system.

10 F. Gellan Gum

The present dry mix compositions essentially comprise about 0.01 to about 0.2% gellan gum. Better results in terms of specific volumes and nicely domed baked goods without undesirable dryness are obtained when 15 the gellan gum comprises about 0.01 to 0.2% of the dry mix. For best results, the gellan gum can comprise about 0.015 to 0.12% of the dry mix.

Gellan gum is a heteropolysaccharide prepared by fermentation of *Pseudomonas elodea* ATCC 31461. Gellan 20 gum is available from Kelco Division of Merck & Co., Inc., San Diego, Calif., under various names, including KELCOGEL, KELCOGEL IF, KELCOGEL PC, and KELCOGEL F. Processes for preparing gellan gum include those described in U.S. Pat. Nos. 4,326,052 and 4,326,053. 25 Previous to the present invention, gellan gum had been taught as being useful for a variety of gelling, texturizing, stabilizing and film forming applications, particularly as a gelling agent in certain foods, personal care products and industrial applications.

30 In preferred embodiments, gellan gum is the sole hydrophilic colloid.

In other embodiments, the dry mix can additionally include conventional gum ingredients in addition to the essential gellan gum component.

35 The gellan gum can, if desired, conveniently be admixed with a diluent or carrier, e.g., sugar and/or

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starch, maltodextrin, etc. for ease of handling, e.g., a 3:1 weight ratio of carrier to gellan gum.

G. Optional Components

The present dry mixes can optionally contain a
5 variety of additional ingredients or "conventional
additives" suitable for rendering finished baked goods
prepared therefrom more organoleptically desirable. Such
optional dry mix components include anti-oxidants, anti-
microbial flavor/coloring agents, egg white solids, salt,
10 coloring agents, flavoring agents, flavor chips, nuts and
fruit pieces, or other edible inclusions. Flavor chips
include chocolate, mint chocolate, butterscotch, peanut
butter chips and mixtures thereof. If present, such
optional components comprise from about 1 to 25% of the
15 dry mixes of the present invention.

Another highly preferred optional ingredient in the
present dry mix compositions is nonfat dry milk solids.
Nonfat dry milk solids aid the structuring of the
finished baked good. If present, such dry milk solids
20 can comprise from about 0.5 to 2.0% of the present mixes.

Still another useful optional ingredient is starch.
Starch addition can be used to influence a variety of
product attributes including viscosity, finished baked
goods' volume and texture. The starch used can be any of
25 the common food starches, for example, potato starch,
corn starch, wheat starch, rice starch, barley starch,
oat starch, tapioca starch, arrowroot, and sago starch.
Modified starches and pregelatinized starches can also be
used. If present, the added starch ingredient(s) can
30 comprise about 0.1 to 10%, preferably about 1 to 8% of
the dry mix.

If desired, the present dry mixes and articles
prepared therefrom can additionally comprise about 0.02
to 2% of a supplemental gum member selected from the
35 group consisting of guar, xanthan, locust bean,
carboxymethyl cellulose and mixtures thereof.

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DRY MIX COMPOSITION PREPARATION

The dry mixes of the present invention are prepared by blending the essential and optional components together in such a conventional manner as to produce a free-flowing dry mix. In a preferred method of dry mix preparation, the flour, the sucrose, the shortening, the leavening agent and any optional ingredients are blended in a ribbon blender for a period of about 8 to 20 minutes at mix temperatures from about 65° to 100°F. When a liquid oil is part of the shortening ingredient, then the oil is normally added during blending by means of an oil spray or by extruding the blend mixture through a spreader bar. Blending is continued after introduction of the oil until the oil lump count is from about 10 to 15% by weight on a number 20 U.S. Standard sieve. Best results are obtained when the temperature of the mix after blending is from about 65° to 70°F.

In the preferred method of dry mix preparation the mix is subsequently finished in a standard commercial finisher. Finishers are devices for reducing shortening lump size and for more intimately incorporating the shortening into a mix by impact mixing. Thus, finishing the mix in a finisher is highly preferred when the shortening component comprises a plastic shortening. Commercially available finishers generally include an exposure on which are mounted rapidly rotating blades. After finishing to insure reduction in lump count, larger sized optional ingredients such as nuts and fruits are then blended into the mix. The present dry mixes are then packaged in a conventional manner in conventionally suitable containers which typically hold specific weights of the dry mix.

DRY MIX COMPOSITION USE

The present gellan gum containing dry mixes are conveniently prepared into finished baked goods by forming a gently admixed, heterogeneous batter by hand

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mixing the dry mix no more than 50 strokes, after having added water or other aqueous liquid, oil and eggs or egg whites to the mix to form an improved batter having about 20 to 40% moisture, 0 to 30% oil in addition to the
5 shortening component, and 0 to 5% egg solids. For brownies, only simple mixing (i.e., with a fork or spoon) after liquids addition for about 20 to 50 strokes is required to form a batter. For layer cakes and other lighter baked goods, more vigorous mixing can be used to
10 incorporate air into the batter.

Preferably, the batter comprises from about 60 to 85% of the dry mix, from about 0.5 to 4% egg solids, from about 2 to 15% oil, and from about 12 to 22% water.

To prepare a batter, the dry mix described above is
15 combined with eggs, oil and water. The batter comprises, by weight, from about 65 to 88% of the dry mix, from about 0.5 to 6% egg solids, from about 0 to 15% oil, and from about 10 to 25% water.

Thereafter, a suitable quantity of the batter
20 resulting from the mixing process is charged into a baking container and baked for sufficient times, for example, at 162.7 to 190.5°C (325 to 375°F) for about 20 to 40 minutes to form a finished brownie baked good.

Baking time depends on the thickness of the batter
25 in the pan, with a longer bake time required for a thicker (higher) batter. Bake times range between about 20 to 45 minutes. For a preferred, chewy brownie, bake times are between about 20 to 30 minutes. For a more cake-like brownie, a longer bake time is used, generally
30 longer than 27 minutes.

The product of this invention, then, is a baked good comprising from about 68 to 93% of the dry mix; from about 0.5 to 6% egg solids; from about 0 to 16% oil; and from about 5 to 20% water. Preferably, the baked good
35 comprises from about 72 to 91% of the dry mix, from about 1 to 4% egg solids, from about 2 to 12% oil, and from

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about 6 to 18% water.

The resultant finished baked goods are characterized by a highly moist but not sticky or tacky texture. The finished baked goods are ready for immediate consumption
 5 or can be prepared on a commercial scale for refrigerated distribution.

The brownies exhibit a more intense chocolate flavor and a faster chocolate flavor display. They have a desirably moist and tender texture with a rapid mouth
 10 melt. They also have an improved ability to retain their moisture over time. This improved moisture retention reduces staling in the brownies, helping to keep them tender.

The compositions of the present invention also find
 15 particular suitability for use to provide fully baked finished baked goods suitable for refrigerated or frozen distribution and sale.

Example 1

A dry mix for a brownie is prepared from the
 20 following formulation:

	<u>Ingredient</u>	<u>Weight %</u>
	Sugar	57.00
	Flour	24.00
	Cocoa	8.30
25	Shortening	8.00
	Starch	1.22
	Salt	1.00
	Flavor	0.20
	Gellan gum	0.03
30	Dicalcium phosphate	<u>0.25</u>
		100.00%

About 550g of the above formulation is admixed with 60g water, 1/3 cup oil, and 100g fresh eggs, with a fork until a rough batter is formed. Thereafter, about 800g
 35 of the batter is poured into a lightly greased 13" x 9" x 2" pan (375 cm x 225 cm x 50 cm) and then baked at

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176.6°C (350°F) for about 25 to 30 minutes to produce finished brownies.

The brownies exhibit a unique moist texture.

Example 2

5 A dry mix of the present invention for layer cakes is prepared having the following formulation:

	<u>Ingredient</u>	<u>Weight %</u>
	Flour	37.00
	Sugar	42.00
10	Cocoa	7.00
	Shortening	7.00
	Pregelatinized starch	1.30
	Salt	1.00
	Flavor	0.20
15	Color	0.05
	Emulsifier	2.00
	Gellan gum	0.05
	Leavening acids	1.40
	Sodium bicarbonate	<u>1.00</u>
20		100.00%

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Example 3

A dry mix for a muffin of the present invention is prepared having the following formulation:

	<u>Ingredient</u>	<u>Weight %</u>
5	Flour	51.80
	Sugar	38.30
	Shortening	4.00
	Pregelatinized starch	2.00
	Salt	1.00
10	Flavor	0.26
	Color	0.10
	Emulsifier	0.50
	Gellan gum	0.04
	Leavening acid	1.00
15	Sodium bicarbonate	<u>1.00</u>
		100.00%

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WHAT IS CLAIMED IS:

1. A culinary dry mix useful in the preparation of a batter which upon baking yields a baked good of improved texture comprising:
 - 5 A. about 15 to 60% by weight of the mix of flour;
 - B. about 25 to 65% by weight (dry basis) of the mix of sugars;
 - C. about 0.5 to 2% by weight salt; and
 - 10 D. about 0.01 to 2% by weight of the mix of gellan gum.
2. The culinary dry mix of claim 1 comprising about 2 to 12% cocoa.
3. The culinary mix of claim 2 comprising a shortening ingredient.
- 15 4. The culinary mix of claim 3 additionally comprising an emulsifier.
5. The culinary mix of claim 4 additionally comprising a leavening system.
- 20 6. The culinary mix of claim 2 comprising about 15 to 40% flour, about 50 to 65% sugar, about 5 to 10% cocoa, about 0.01 to 0.2% gellan gum, and whereby the dry mix is suitable for making
25 brownies.
7. The culinary mix of claim 6 additionally comprising 0 to 2% by weight of nonfat dry milk solids.
8. The culinary dry mix of claim 7 comprising:
 - 30 about 0.1 to 4% by weight of the dry mix of the leavening system.
9. The culinary dry mix of claim 4 comprising about 0 to 15% by weight of the dry mix of the shortening.
10. A process for improving a batter system consisting essentially of flour, sugar, salt and sufficient
35 liquids to form a batter which comprises:

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incorporating about 0.01 to 0.2% by weight (dry basis) of gellan gum into the batter.

11. The process of claim 10 wherein the culinary mix additionally comprises a shortening ingredient.
- 5 12. The process of claim 11 wherein the culinary mix comprises about 0.01 to 0.2% by weight of gellan gum.
13. The process of claim 10 additionally comprising about 2 to 12% cocoa.
- 10 14. The process of claim 11 wherein the culinary mix comprises about 1 to 20% of shortening and wherein the batter comprises about 10 to 45% moisture.
- 15 15. The process of claim 12 wherein the culinary mix additionally comprises about 1 to 4% by weight of an emulsifier.
16. The process of claim 13 wherein the batter additionally includes about 0.1 to 6% egg solids.
17. The batter product prepared by the process of claim 10.
- 20 18. The batter product prepared by the process of claim 13.
19. The batter product prepared by baking the batter prepared by the process of claim 16.
20. A baking method for preparing a baked good with superior texture, yet comprising the steps in sequence of:
 - A. admixing a dry culinary mix and sufficient amounts of liquids to form a batter, said dry mix comprising
 - 30 1. about 15 to 60% by weight of the culinary mix of flour;
 2. about 25 to 65% by weight (dry basis) of the culinary mix of sugar;
 3. about 0.01 to 2% by weight of the culinary mix of gellan gum; and
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- B. baking the batter in a compatible container for a time sufficient to form a finished baked good.
21. The method of claim 15 wherein the culinary mix additionally comprises about 2 to 12% cocoa.
22. The method of claim 16 wherein the culinary mix additionally comprises a shortening ingredient.
23. The method of claim 17 wherein the culinary mix additionally comprises an emulsifier.
24. The method of claim 18 wherein the culinary mix comprises:
about 10 to 40% flour,
about 17 to 44% sugar, and
about 2 to 8% cocoa.
25. The method of claim 19 wherein the culinary mix comprises about 0.01 to 0.2% gellan gum.
26. The method of claim 1 wherein the culinary mix additionally comprises about 0.05 to 2% by weight of a supplemental gum member selected from the group consisting of guar gum, locust bean gum and mixtures thereof.
27. The finished baked good product prepared by the method of claim 20.
28. The finished baked good product prepared by the method of claim 24.
29. The method of claim 20 additionally comprising the step of refrigerating the finished baked good.
30. The method of claim 25 additionally comprising the step of refrigerating the finished baked good.

Fetherstonhaugh & Co.
Ottawa, Canada
Patent Agents