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COOKING BULLETIN No. 2

BATTERS AND DOUGHS

FOR THE
IDAHO COOKING CONTEST CLUBS

Prepared by

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Co-operative Extension Work University of Idaho
In College of Agriculture
Agriculture and Home Economics U. S. Department of Agriculture
State of Idaho. Co-operating.

Girls Cooking and Home Economics Club Work

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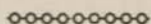
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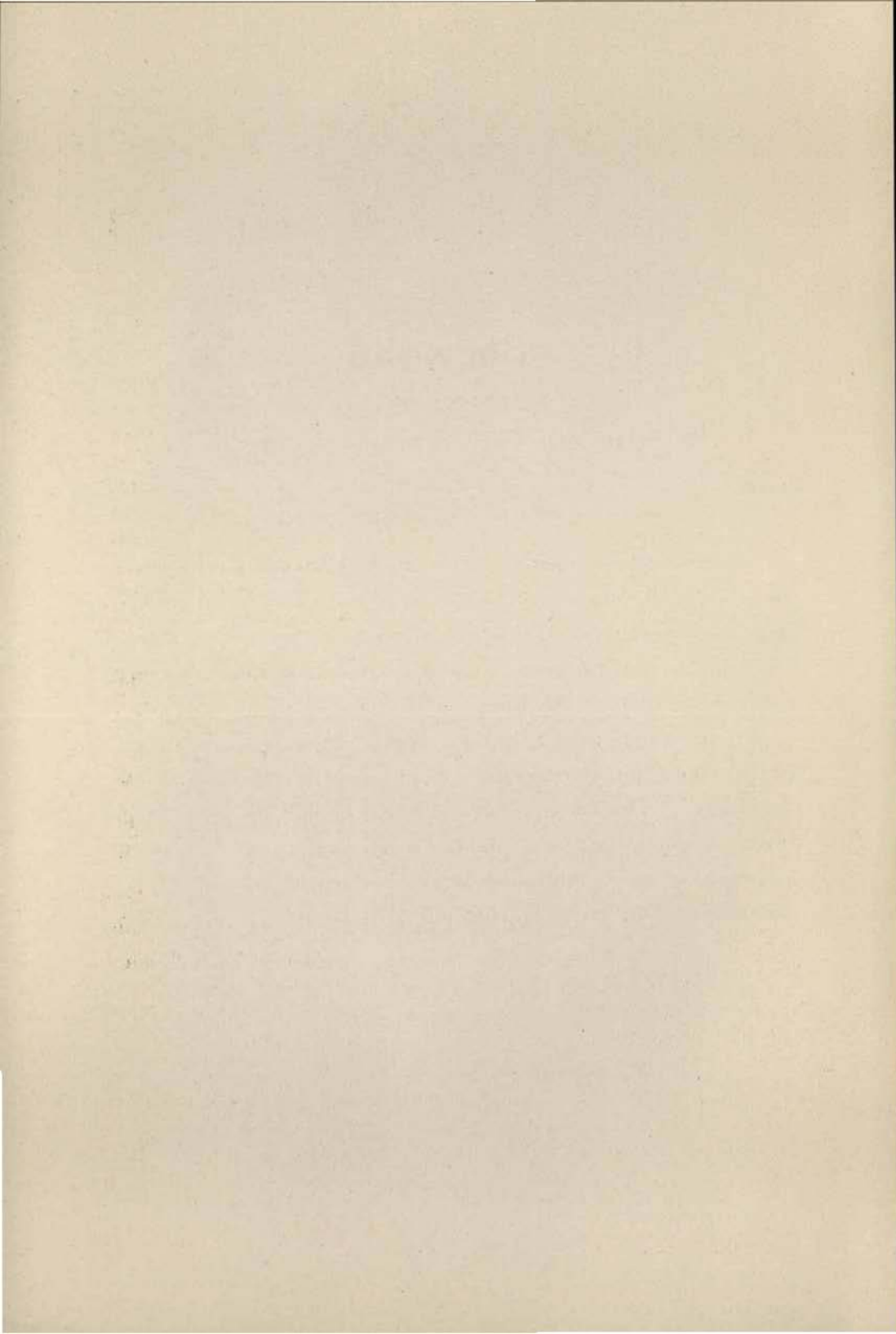
FOREWORD



TO THE COUNTY SUPERINTENDENTS and CLUB ADVISORS.

Much of the success of this work depends on your interest, the interest of your teacher, and that of the girls of your county. Encourage teachers, club advisors and club members to read the bulletins. With your interest and co-operation the result of the work spells SUCCESS.

In selecting Club Advisors, choose those who are deeply interested in the welfare and advancement of the girls of the community. The advisor may be a teacher or any other wide awake woman who does well the work of her club. Application blanks may be obtained by request sent to the State Club Supervisor, University Extension Department, Boise, Idaho.



Second Year Cooking Bulletin

BATTERS AND DOUGHS

Plan

The plan for carrying on the work offered in this bulletin is the same as that of the bread clubs. After the girls have completed the work required in the bread clubs this work is open to them. The same rules are to apply as to the other clubs. Five girls or more between the ages of ten and eighteen years enrolled in the schools of the state, either rural or town, form a club and complete the work given in the bulletin. Fill two application blanks and send both to your County Superintendent, who will give your club a county number. She will send one of the completed blanks to the State Club Supervisor, the other she will retain in her office.

The State Club Supervisor and the Extension Department of the University of Idaho, will see that you are provided with additional helps in bulletins and circulars from the U. S. Department of Agriculture and from the Home Economics division of the Extension Service.

For contest work the following will be required:

- | | |
|-------------------------|---------------|
| 3 Baking Powder Biscuit | 3 Doughnuts |
| 3 Graham Muffins | 3 Cookies |
| | 1 Sponge Cake |

This work may be done in school under the supervision of a teacher, or at home under the direction of a club advisor. Each article must be made at home at least ten times before it can be entered for a contest. The recipes not required will be found very helpful for home use and will make the girl more skillful, as well as widening her field of usefulness.

Second Year Cooking.

The work in this bulletin includes the batters and dough mixtures, and is a continuation of the bread work as given in the bread bulletin used last year. This year's bulletin gives recipes for quick breads, and these are followed with those of

cookies and cake. The aim is to give the girls more work in cooking, yet to have it such that it can be used for constant work.

Batters and Doughs.

All breads and cakes are either batters or doughs and have general rules for their making. Owing to the variation in flours, exact proportions cannot be given, but the following measurements will be found satisfactory:

One measure of flour to one of liquid makes a pour batter.

Example. Popovers.

Two measures of flour to one of liquid makes a drop batter. Example: muffins, cake, or drop biscuits.

Three measures of flour to one of liquid makes a soft dough. Example: biscuits and bread.

Four measures of flour to one of liquid makes a stiff dough. Example: dumplings and bread.

Leavening Agents: The production of gas is the chief object of a leaven. The production of gas results in a porous material which is more palatable, more easily digested and more nutritious; it does not contain any more nourishment but the body can more easily assimilate it than a hard, compact, imporous mass.

Chief methods of leavening used are:

1. Production of Carbon Dioxide Gas.
2. Introduction of Air.
3. Introduction of Steam.

1. Carbon dioxide gas is produced by yeast or by the use of chemicals.

Baking Powder is made of bicarbonate of soda and cream of tartar, with starch as a filler. The gas produced is the same as with yeast but instead of being the result of fermentation, it is the result of the action of the acid on the soda. This action takes place in baking powder biscuit, muffins, etc.

The same chemical action takes place when bicarbonate of soda is used in sour milk. The lactic acid of the milk brings about the chemical action and formation of gas. The doughnut recipe given illustrates the production of carbon dioxide gas by the action of baking soda on the lactic acid in the sour milk.

2. Air is introduced by beating or by machinery. The usual method is by beating of air into egg batters, depending

on its expansion for making batters porous. This means is used in popovers.

3. Steam is also introduced by machinery or the water present in the food itself may cause leavening by its expansion on being turned into steam during cooking.

In all methods the expansion of gas, air, or steam, causes the gluten of flour, or the albumen of the egg to stretch and at the same time the heat hardens it. If the gas is formed too slowly, due to the lack of leavening material or heat, the loaf hardens and dries out before it is sufficiently light, and it is very solid in texture. If the heat of the oven is so great at first as to harden the loaf rapidly on the surface, the gas, forming in large quantities, later, when the interior of the loaf has reached the required heat, causes the crust to crack and makes an unsightly loaf, coarse in texture.

Shortening: Shortening is used to make biscuits and cake tender as the fat in the dough keeps the particles separate and makes them break apart readily. If a small amount of shortening is called for it is usually melted and added last, as in muffins; if a large amount, it is creamed with the sugar or mixed with the flour.

The following recipe is the foundation for biscuit dough, and, with a little variation, may be used for dumplings, crust for meat pies, and shortcake.

Baking Powder Biscuit.

2 cups flour	4 tsp. baking powder
1 tsp. salt	2 tsp. ^{tblsp.} lard
	^{3/4} to 1 cup of milk or water

Mix the dry ingredients; rub the lard in thoroughly then add the milk gradually, stirring with a spoon until a soft dough is formed which can be stirred free from the side of the mixing bowl. Turn out on the board, using flour to prevent sticking. (Avoid using dry flour upon the surface of the biscuits). Roll to about $\frac{3}{4}$ inch in thickness, cut with rather small cutter. Bake 5 to 8 minutes.

II.

Cornmeal Parker House Rolls.

1 1-2 cups flour	1 tablespoon butter
$\frac{3}{8}$ cup cornmeal	1 tablespoon lard
4 teaspoons baking powder	$\frac{3}{4}$ cup milk or water
	1 teaspoon salt

Mix same as baking powder biscuits and cut the shape of Parker House Roll.

III.

Graham Muffins.

1 cup graham or whole wheat flour	
1 cup flour	1 egg
$\frac{1}{4}$ cup sugar	1 to 3 tbsp. melted butter
1 tsp. salt	4 tsp. baking powder
	1 cup milk

Mix and sift dry ingredients; add milk gradually, egg well beaten and melted butter; bake in hot oven in buttered gem pans twenty-five minutes.

IV.

Cream Scones.

2 cups flour	4 tablespoons butter
4 tsp. baking powder	2 eggs
2 tsp. sugar	$\frac{1}{8}$ cup cream
	$\frac{1}{2}$ tsp. salt

Mix and sift together flour, baking powder, sugar, and salt. Rub in butter with tips of fingers; add eggs well beaten, and cream. Toss on floured board, pat and roll to three-fourths inch in thickness. Cut in squares, brush with white of egg, sprinkle with sugar and bake in hot oven 15 minutes.

V.

Popovers.

1 cup flour	1 egg
1 cup milk	$\frac{1}{2}$ tsp. salt.

Put all together in mixing bowl and beat with egg-beater for 10 minutes. Turn into hissing hot, buttered iron gem pans, or earthen custard cups, and bake thirty to thirty-five minutes in a hot oven.

Cake.

Two kinds of mixtures are considered:

1. Without butter—as sponge cake.
2. With butter—as cup or layer cake.

In making cakes it is essential to have the best ingredients; to take care in measuring and combining materials; to have the pans properly prepared; the oven heat regulated; and the cake watched during baking.

Pastry flour contains more starch and less gluten than bread flour, and for this reason makes a lighter and more tender cake. If bread flour must be used, two tablespoons less for each cup are allowed than the cake calls for.

In cakes of the old fashioned kind, no baking powder was used; the dependence was on eggs and beating to make them light. As the price of eggs went up, and duties multiplied, the number of eggs were reduced and baking powder began to replace both eggs and beating. The fewer the eggs, and the more baking powder, the hotter the oven a cake requires.

Sponge Cake.

4 eggs	1 cup sugar
1 cup flour	2 tbsps. lemon juice
	$\frac{1}{4}$ tsp. salt

To mix: Beat yolks until thick and lemon colored. Add sugar gradually and continue beating. By "beating" is meant turning the mixture over and over as if we were turning an imaginary wheel through it. This fills the mixture with air. Add lemon juice and about $\frac{1}{3}$ of the flour. Beat until smooth. Fold this mixture together with the remainder of the flour, into the stiffly beaten whites.

"Folding" is the combining of two mixtures into which the air has been beaten, in such a way that none of this work is undone. It means cutting down into the mixture with a spoon or knife and when it touches the bottom of the bowl, turning it over. Put in unbuttered pans, $2\frac{3}{4}$ by $4\frac{1}{2}$ inches.

For a sponge cake, the oven should be moderate throughout. This is because a high temperature makes the albumen of the egg, which is the foundation of the sponge cake, tough and indigestible.

Butter Cake.

The proportion in butter cakes should always be $\frac{1}{3}$ to $\frac{1}{2}$ as much butter as sugar and about $\frac{1}{2}$ as much liquid as flour.

$\frac{1}{4}$ cup butter	$\frac{1}{2}$ cup milk
$\frac{1}{2}$ cup sugar	$1\frac{1}{2}$ cup flour
1 egg	$2\frac{1}{2}$ tsp. baking powder

Cream the butter, add sugar gradually and egg well beaten. Mix and sift flour and baking powder, add alternately with milk to first mixture. Bake thirty minutes in a shallow buttered pan.

If a cake calls for the whites and yolks beaten separately,

the whites are usually added at the last, as in a sponge cake and in cakes where the white alone is used.

A cake can be made fine grained only after long beating, although light and delicate with a small amount of beating. A coarse grained cake may mean either too much baking powder, too coarse sugar, or not enough beating before adding egg whites.

In filling pans, have the mixture come well to the corners and sides of the pan, leaving a slight depression in the center, and when baked, the cake will be perfectly flat on top. Cake pans should be filled nearly two-thirds full if cake is expected to raise to top of pan.

To Bake Cake.

The baking is more critical than the mixing. In baking a cake, divide the time into quarters. During the first quarter, the mixture should be rising; second quarter, continue rising and being to brown; third quarter, continue browning; fourth quarter, finish baking and fall from sides of pan. When baking cakes, arrange to have nothing else in oven and place loaves as near center as possible. If too near the fire box it is apt to burn on one side. If cake is put in too slow an oven, it often raises over sides of pan and is of very coarse texture, due to the over-production of carbon dioxide. If put into too hot an oven, it browns on top before sufficiently risen, and in its attempts to raise, breaks through the crust, thus making an unsightly loaf. Cake will also crack on top if too much flour has been used. The oven should be kept as nearly as possible at a uniform temperature. Small cakes and layer cakes require a hotter oven than loaf cakes.

To Remove Cakes From Pans.

Remove cake from pans as soon as it comes from oven by inverting pan on a board covered with a clean white paper. If cake is inclined to stick, do not hurry it from pan, but loosen with a knife around the edges and rest pan on its four sides successively; thus by its own weight a cake may be helped out.

Doughnuts.

2 eggs	1/2 tsp. grated nutmeg
1 cup sugar	1/2 tsp. soda
1/2 tbsp. butter	1 1/2 tsp. salt
1/4 tsp. cinnamon	4 cups flour
1/4 cup sour cream diluted to a cup with sour milk.	

Put flour in shallow pan; add salt, soda, and spices. Work in butter with tips of fingers, add sugar, eggs well beaten and sour milk. Stir thoroughly, and toss on board thickly dredged with flour; knead slightly, using more flour if necessary. Pat and roll out to $\frac{1}{4}$ inch thickness; shape, fry in deep fat and drain. Sour milk doughnuts may be turned as soon as they come to the top of fat. Avoid turning the doughnuts more than once. The fat must be kept at uniform temperature. If too cool doughnuts will absorb fat. If too hot doughnuts will brown before sufficiently risen.

Test For Fat For Frying Uncooked Mixtures.

When the fat begins to smoke, drop in an inch cube of bread, from the soft part of the loaf. If the bread browns in one minute the fat is then the right temperature.

White Cookies.

$\frac{1}{3}$ cup butter and lard	$\frac{1}{4}$ cup milk
in equal proportions	2 cups flour
1 cup sugar	2 tsp. baking powder
2 tsp. vanilla	$\frac{1}{2}$ tsp. salt.

Cream the butter, add sugar, egg well beaten, milk and vanilla. Mix and sift the flour, baking powder and salt and add to first mixture. Toss one-fourth of mixture on a floured board and roll as thinly as possible. Shape with a small round cutter, first dipped in flour. Place near together on a buttered baking pan and bake in a moderate oven. Gather up the trimmings and roll with another portion of dough. During rolling, the bowl containing the mixture should be kept in a cool place, or it will be necessary to add more flour to the dough making cookies hard, rather than crisp and short.

Cookies should be kept in stone crocks or jars with lid or close covers. This prevents the evaporation of the moisture and consequently keeps the cookies from being dry and hard.

