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DEPARTMENT OF AGRICULTURE OF AGRICULTURE

HOUSEKEEPERS! CHAT

Wednesday, April 8, 1936.

(FOR BROADCAST USE ONLY)

Subject: "The Easter Cake-Maker." Information from the Bureau of Home Economics, U. S. Department of Agriculture.

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The news has just reached me that the cookery people at the Department of Agriculture have been investigating cake-making recently. They have been making a careful check of ingredients, proportions and various methods of mixing and baking to find how Mrs. American Housewife can get the best results from her home-baked cakes.

I am sure every thrifty citizen will be glad to hear this news. Such a study is one move toward reducing our national loss from cake failures. The public doesn't hear much about this form of national waste and loss. As far as I know, no economist has computed the dollars that go into the American garbage-pail each year in the form of scorched cakes and fallen cakes and cakes otherwise ruined in the making. Needless to say, this is a subject that we women keep to ourselves and don't bring to the attention of the man of the house when we can help it. But any experienced housewife who makes a private count of the cakes she has ruined and those her neighbors have sighed over --well, she will agree that this is one of the ways good food continually is going to waste.

We Americans are great cake-eaters. In fact, the light fluffy cake of either the butter or the sponge variety, is one of our typical American delicacies. But these light, fluffy, delicate cakes happen to be a rather complicated form of cookery. The foods people tell me that many housewives still don't realize that what they call "cake luck" actually is getting the right proportion of the right ingredients, putting them together properly, and then baking them at the right temperature. They say that many a home cakemaker still tries to throw a cake together slap-dash and bake it helter-skelter and then wonders why it was a failure.

Here are some of the points the foods people report as a result of their recent cake-making investigations. These are not all brand-new ideas, to be sure, but they are all newly checked. If you are a successful cake-maker, you may have discovered these facts long ago for yourself. On the other hand, if you now and then have a cake failure, this report may solve your difficulties.

First, the foods people find that the more tender and delicate a cake is, the more important the measuring and the mixing are. With what you might call "rough-and-ready" mixtures, like the one-egg cake or gingerbread, the investigators had good enough results using rough-and-ready methods. But when they came to making the butter cakes and sponge cakes, they had to measure and mix with the greatest care for good results. They report that when the batter is rich in sugar and fat and eggs, then the balance of the mixture becomes more delicate.



They say that in these finer cakes, a little too much of one ingredient or a bit too little of something else can throw that mixture off-balance and cause the cake to fall.

The temperature of the ingredients at the time of mixing also has much to do with good results. They explain that the "object of mixing is to build up a staple emulsion of ingredients." (Pretty technical language for your Aunt Sammy, but I think I get the idea.) Anyway, they find that this "staple emulsion" forms best when the ingredients are all about room temperature -- that is, about 70 degrees Fahrenheit. They say also that at this temperature fat creams more readily and egg whites beat more quickly and to a larger volume.

Since mixing is so important in these fine cakes, you'll be interested in the report on mixing. Listeners, we may just as well face it. The foods people say that the longest and most careful mixing gives the best and finest cake texture. No short cuts for fine cake makers.

For the fine butter cakes, here are the steps in mixing that produced the best results.

First, cream the fat until it is soft. Second, add flavoring and the finely granulated sugar. Gradually stir until the mass increases in volume and becomes light and fluffy due to the incorporated air. (Listeners, again I am repeating the words of the foods people.)

Continue creaming the sugar and fat as you add the well-beaten egg yolks. Put the yolks in gradually, otherwise the mixture will curdle. When the yolks go in, the emulsion begins to form.

The next step is to add the sifted dry ingredients and the liquid alternately. The foods people find that the most successful way to add them is to sift in a little of the flour, baking powder and salt together, and then to pour in a little milk, and so on.

The last step is to fold in the beaten whites. No more stirring after that

Batter mixed this way should be smooth and fairly thick and should go into lightly greased pans. By the way, the foods people believe in greasing the pans for butter cakes but not for the sponge and angel cake.

Here is a special point of interest to Easter cake-makers. If you want a very <u>yellow</u> butter cake, you can use 2 eggs yolks instead of 1 whole egg. But if you want a <u>white</u> Easter cake, you reverse the process -- use 2 egg whites instead of 1 whole egg and reduce the amount of baking powder slightly.

One more point. This is about baking. The temperature of your oven depends on the size of the pan holding the cake. Smaller cakes can stand notter ovens than larger cakes. Cup cakes and most layer cakes will bake evenly in a moderately hot oven -- that is, about 375 degrees F. But <u>loaf</u> cakes, especially those containing a good many eggs, require a moderate oven -- about 350 degrees F. Chocolate cakes, because the chocolate scorches easily, need even less heat -- around 300. Sponge cakes of all kinds need a very moderate oven -- about 325 degrees.

