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Can You Bake an Angel Cake?

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Can You Bake An Angel Cake?

by Winnifred Cannon

THREE hundred and forty angel cakes! After four judges tasted, poked and smelled more than three hundred angel food cakes, Margaret Looft and Elizabeth Kraatz, the experimenters, came to the conclusion that angel food batter baked at 325 degrees F. for about 35 or 40 minutes usually produced the best cake.

The first work was conducted by Margaret Looft (Hinrichsen), '37, and the second by Elizabeth Kraatz, '38, for their masters' theses at Iowa State College. They found, however, that there is not always one best temperature. Depending on the characteristics of individual ovens, the temperatures and the time of baking at each temperature may vary so that standard cakes might be obtained at temperatures between 300 and 350 degrees F.

In the determination of the best baking temperature, five temperatures, ten degrees apart, were selected with which to work. The temperatures ranged from 284 to 356 degrees F. (140-180 degrees C.) Leaving no room for chance a total of 160 cakes were baked, using one-fourth the recipe for economical reasons.

One mix was divided into five cakes, each being shown no preference, for all cakes were prepared under standard conditions and in similar utensils. Even to the point of place in the oven there was no partiality. Each cake had a separate oven and was placed in the front center position.

Four judges scored the 160 products, judging each on tenderness, texture, moistness and eating quality. The subjective scoring of the judges on tenderness was supplemented by the tensile strength test, which measures the weight required to tear the cake apart. Slices three-eighths of an inch thick were cut from each cake, care being taken to get a crosswise piece since angel cakes are lighter at the top. Each slice was tested. The amount of finely-ground sand necessary to fill up the air spaces gave evidence of texture, while the weighing of the batter before and after baking determined the moisture lost.

At the end of the first experiment the question of the optimum time of baking at each temperature arose. Experiments were conducted to determine what length of time gave the most satisfactory results.

Three of the five original temperatures were used, 300, 320 and 340 degrees F. (150, 160 and 170 degrees C.) Cakes were baked at four different periods of time at each temperature.

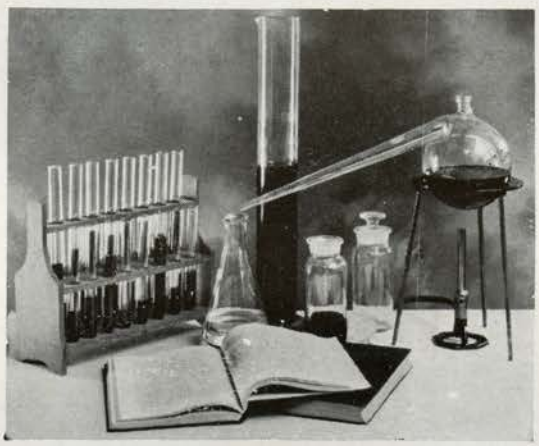
The full recipe was mixed and divided into four equal parts. All four cakes were baked in the same oven, but the time of baking varied. This procedure was repeated fifteen times for each of the three temperatures used, making a total of 180 cakes.

Four judges scored the products on the same four qualities, with similar tests being given, as were used in the tests for optimum temperature.

When both of the experiments were completed with the small cakes, about a dozen cakes of average size were baked to verify the conclusions drawn from the results. The larger cakes reacted in the same way as did the smaller ones.

In applying the results obtained from these experiments to the problems of the housewife, it might be said that any of the temperatures suggested (284-356 degrees F.) may produce good cakes, provided the optimum baking time for each temperature is used. However, the longer the cake is baked the more tough it becomes.

Because of the tendency to toughen, cakes should be baked for a short period, although they result in a less brown product than the average housewife considers desirable. This shorter baking time gives cakes which are more tender and of superior eating quality.



CHEMISTRY QUALMS

HOW can a coed clearly think
In fog that is so thick?
How can she concentrate on chem
When sulphur makes her sick?
How can a coed analyze?
It is no easy trick.

She reads directions carefully
Of everything to do.
There cannot be a single slip
In the process she goes through;
For every step has bearing on
The next which will ensue.

Now first she heats the particles
At a very rapid rate.
She hopes the little ions there
Will soon coagulate,
And form within the beaker then
A fine precipitate.

But look again, and you shall see
That something's in a mess.
The mixture that she has prepared
Is not a great success.
She quickly added KCl;
Now she needs SOS.

Instructors hurry to the scene;
The mixture starts to rise.
The actions that it carries on
Elicit great surprise.
Oh could she never understand
Experiments she tried!

by Helen Greene

Breathes there a college woman who never to herself has muttered in disgust when a run popped in those lovely filmy hose she bought only yesterday? Would that those hose possessed an ounce of conscience and could realize what a hole they made in this week's allowance. Cautious as the smart coed may be, snags inevitably take their toll, along with those surprise lacy patterns which just happen for no apparent reason.

A clear liquid cement can be purchased in small tubes for hose mending at dime stores. The cement is not destroyed by washing.

Here are a few simple precautions which may lead to longer life for hosiery:

1. Buy hosiery a half size too long rather than snug—that's a rule for foot care too, incidentally.
2. Anchor that back seam firmly in the midle of the heel.
3. Wear heel grips for slipping shoes—that slipping is death on stockings and excellent for blisters.
4. Fasten the back garters first.
5. After their nightly washing, stretch the feet and legs out with the seam straight.