A Better Cookie

By Landon Moranty

Why do cookies grow?

Cookies grow in width for the simple reason that while in the oven the fats in the cookie will melt and spread across the pan.

That is simple enough to understand however why a cookie rises is a lot more complex. You see, it's the carbon dioxide gas and water vapor that will form small bubbles and make your cookie rise. This ends up making the cookie caller of course however it will also keep the cookie from getting too dense.

So theoretically by adding more baking soda will make your cookie taller and pre-melting the fats or just the butter in this case will make it wider.

My Experiment

For this experiment my question I sought more insight on was "How can I make the best cookie I can?" after realizing how untestable that question was I landed eventually on "How can I, using baking soda and different variants of butter, make a cookie that's wider and taller than the average?" The original recipe was simple, 2 ¼ cups flour, 1 tsp of baking soda, 1 tsp salt, 1 ½ sticks of butter at room temperature, ¾ cup of brown sugar, 2/3 cup granulated sugar, 2 large eggs, 1 tsp of vanilla extract, and chocolate chips. That would be my control, but for the test I would have 6 batches of 3 cookies to try. ½ recommended baking soda, then the recommended, and then an additional half of the baking soda. Then for testing the butter I would use chilled, the recommended room temp, then I would test melting the butter before adding it to the mix to be melted in the oven. However an important part is to not sacrifice the taste, so I tested that too.

Cookie Type	Radius (cm)	Height (cm)	Volume (cm^3)	Taste 1	Taste 2
50% b. soda 1	7.6	1.3	50	Rubbery	Chewy Flour
50% b. soda 2	7.5	1.4	50	Crunchy smooth	Chewy Bread
50% b. soda 3	7.5	1.3	50	Chocolatey	Chewy Bad
100% b. soda 1	4.25	2.5	50	Floury Mush	Dry
100% b. soda 2	4.625	2.5	50	Crunchy	Bland
100% b. soda 3	4.75	2.75	52	Ex. Crunch	Dry
150% b. soda 1	4	3	52	Starchy - Bad	Cardboard
150% b. soda 2	4.25	3.25	50	Dry	Crusty
150% b. soda 3	4	3.75	50	Yeasty	Gramcracker
Chilled Butter 1	4	2.25	50	Crunch but soft	Heavy
Chilled Butter 2	4.25	2.5	50	Smooth	Loaded
Chilled Butter 3	4.5	3	54	Filling	Doughy
Room Temp. Butter 1	2.75	3.25	90	Bready	Soft
Room Temp. Butter 2	2.65	3.1	100	Yummy	Yummy
Room Temp. Butter 3	2.875	3	100	Dry	Good
Melted Butter 1	5.25	2.5	104	Slime	Not Cooked
Melted Butter 2	5.5	2.5	150	Bad texture	Wet
Melted Butter 3	5.5	2	120	Soggy	Raw

From left to right, 50% Baking soda, Melted Butter, 150% Baking Soda.