



Baking Soda Man vs. The Clabber Girl: The Great Powder & Soda Debate

by Pamela Manley

Long have I wondered about the differences in the “powder twins” as food writer Robert L. Wolke calls them. Baking soda and baking powder. Two baking miracles. I never quite understood why they were so different. They are both leavening agents. So what’s the big deal?

Here’s why

Known to older generations as bicarbonate of soda, baking soda is one distinct chemical. Whereas baking powder is baking soda – with a kick. It contains at least one acid salt.

Simply baking soda needs a little help to get going in a recipe where baking powder can start the process by itself. Once they do get going, a chemical reaction happens that produces millions of bubbles of carbon dioxide causing their environment to inflate and rise or leaven – Latin meaning to make light.

Kung-Fu Double Action

It is hard to find a baking powder that is not double acting. So what do it mean? When a wet ingredient is mixed with baking powder, the first ‘action’ begins. It starts to bubble, releasing many of those tiny bubbles of carbon dioxide.

When this activated mass of powder and wet ingredients is heated, the second action kicks in, it begins to produce more carbon dioxide bubbles. This is why it is popular with recipes that aren’t going to cook right away like frozen cookie dough.

But because baking powder has this legendary Kung-Fu

action, it can expire much sooner than baking soda. Be sure to store baking powder in an airtight container and check the expiration date. If you don’t you may be saddened by the results. Trust me, I’ve done it.

So do I use them both?

It depends. If a recipe contains an acid, like buttermilk for instance, the leavening agents need to be balanced out by the correct proportion of soda and powder to the acid. But leave this part to the recipe. Tampering with soda and powder quantities can sometime ruin the flavor as well as the final product.

One example of a recipe that uses both soda and powder is a buttermilk cake recipe like the marble cake below. In this particular case, baking soda is used to leaven two things: the batter and the chocolate.

Mom’s Marble Cake

Based on a recipe by
Susan Turner
Food Glorious Food



- 2 squares melted chocolate
- 1/2 teaspoon baking soda
- 3 tablespoons sugar
- 1/4 teaspoon salt
- 1/4 cup hot water
- 3 3/4 cups all-purpose flour
- 2 teaspoons baking powder
- 3/4 teaspoon baking soda
- 1/2 teaspoon salt
- 2 1/2 cups sugar
- 1 cup butter
- 1/4 cup canola
- 4 each eggs
- 1 1/2 cups buttermilk
- 1 tablespoon vanilla extract

Melt chocolate and mix first set of ingredients together; set aside.

Mix next set of ingredients to a crumb-like texture.

Add eggs, milk and vanilla - just until combined.

Pour 3/4 of batter in a greased and sugar coated tube pan.

Mix 1/4 of the batter with chocolate mixture.

Pour chocolate mixture on top of batter and marble in with spoon.

Bake at 300 for about 1 hour or until set in middle (Pick comes out with moist crumbs)

Per Serving (excluding unknown items): 517 Calories; 21g Fat (36.5% calories from fat); 7g Protein; 76g Carbohydrate; 2g Dietary Fiber; 110mg Cholesterol; 513mg Sodium. Exchanges: 2 Grain(Starch); 1/2 Lean Meat; 0 Non-Fat Milk; 4 Fat; 3 Other