

Replacing Table Sugar with Maple Sugar

by STEPHEN CHILDS



Balancing Ingredients

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Replacing granulated cane or beet sugar in recipes with maple syrup should be a growing trend. Guidelines about sugar replacement are different in different sources. It is easy to understand this confusing situation when you realize there are actually two ingredients that need to be balanced. When replacing granulated sugar in a recipe with maple syrup you should consider both the sugar balance and the liquid balance of the recipe. Some recommendations say to add 1 ¼ cup of syrup to replace one cup of sugar, others say to replace one cup of sugar with ¾ cup of maple syrup. One is trying to balance the liquid in the recipe, the other the sweetness. The most straightforward approach is to simply replace one cup of granulated cane sugar with one cup of granulated maple sugar. In this case you gain the extra flavors from maple while the sweetness and the liquid stay in balance. I would especially suggest this where the recipe is depending on the qualities of milk or another liquid that you may be reducing to perform some important function in the recipe beyond what simply using water would accomplish.

Liquid vs. Dry

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One cup of maple syrup at a fairly common density of 67° Brix provides 7.5 ounces (214 grams) of sugar and 3.7 ounces (105 grams) of water. One cup of cane sugar averages about 7.4 ounces (210 grams) of sugar. This is roughly the same amount sugar in a cup of maple syrup as in a cup of granulated sugar. The space around the grains of granulated sugar about equals the space taken up by the water in the cup of maple syrup. The amount of sugar in maple syrup and granulated sugar of the same volume is essentially the same. Using the cup of maple syrup in place of granulated sugar adds an extra 3.7 ounces (105 grams) of water to the recipe. To balance the liquid in the recipe when replacing the granulated sugar with maple syrup you need to reduce other liquids in the recipe, typically water or milk, by 3.7 ounces (105 grams) or between 1/3 and 1/2 cup for each cup of sugar replaced.

Replacing Brown Sugar

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If it is brown sugar you are replacing you would need to go through similar calculations depending whether the recipe calls for packed brown sugar or loose brown sugar. When replacing one cup of loose brown sugar that weighs 5 ¼ ounces (149 grams) of sugar per cup with maple syrup where just the sugar weighs 7.5 ounces (214 grams) per cup, you would replace one cup of loose brown sugar with ¾ cup of maple syrup. This would leave 2.8 ounces (79 grams) or about ¼ cup to reduce from other liquids in the recipe to make the liquids balance

When replacing one cup of packed brown sugar which weighs 8 ounces (227 grams) with maple syrup where just the sugar weighs 7.5 ounces (214grams) per cup you would only need to add one cup and one half ounce (one tablespoon or 21 grams) of maple syrup to balance the sugar in the recipe. Now you have just 3.9 ounces (112 grams) or just less than 1/2 cup to reduce from other liquids in the recipe to make the liquids balance



Powdered Sugar

Powdered Sugar

Replacing powdered sugar would be very similar to replacing granulated sugar, however powdered sugars often perform some specific function in the recipe or confection that may not be accomplished by the maple syrup or sugar. In this case I would suggest you experiment with the replacement before simply counting on everything going well with replacing powdered sugar with maple syrup.

These recommendations are based on average weights for various sugar products. Maple syrup varies in density and granulated and brown sugars vary in size of grain and moisture content. These factors may result in some variation in how your recipes turn out.

Temperature and Volume

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Be aware that fluid volume changes with temperature. Recipes and these conversions usually are based on ingredients being at room temperature. Also, the volume of measuring cups intended for dry ingredients (cups have a fixed volume without a scale) have slightly larger volumes than measuring cups designed for liquid ingredients (these measuring cups usually have a scale for different volumes). Professional chefs get around these sources of variation by developing recipes based on ingredient weight.

» Conversion Facts

1 cup of maple syrup = 240 ml = 319 g of syrup (density of 1.33 g/ml)

At 67° Brix, 1 cup of maple syrup provides 7.5 weight ounces (213 grams) of sugar and 3.7 weight ounces (105 grams) of water.

One gallon of maple syrup at 67° Brix weighs about 11.2 pounds

Granulated sugar - the conversions vary from 195 to 220 g for 1 cup.

One pound brown sugar = 3 cups loose **1 cup** = 5 1/4 weight ounces

One pound brown sugar = 2 cups packed **1 cup** = 8 weight ounces

One pound granulated sugar = 2 1/8 cups **1 cup** = 7 1/2 weight ounces

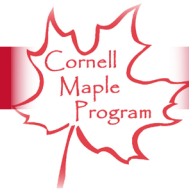
1 cup of water = 8 fluid ounces = 16 tablespoons = 227 grams

One fluid ounce of water = 28.35 grams

Based on these values:

1 cup of granulated sugar = 1 cup of maple syrup, and this will add 3.7 oz (105grams) of water.

The influence of the maple flavor on the recipe is most closely related to the grade of the syrup used. Grade A light or medium amber syrups will add a mild maple flavor to the recipe. Using Grade A dark amber syrup will add more noticeable maple flavor. Maple syrup labeled Extra Dark for Cooking will add the most robust maple flavor. Granulated



Measuring Methods

maple sugar tends to concentrate maple flavors. Which grade you use should depend on your flavor preference and what other flavors maple would be competing with.

Measuring Methods

Use dry measures (measuring cups and spoons that hold the exact amount) for dry ingredients and liquid measures (glass, plastic, or metal containers graduated in cups and fluid ounces) for liquids. When measuring liquids, place the cup on a level surface and get at eye-level to determine the liquid amount. With glass containers, some liquid may creep up the side to create a false level. You need to look through this to judge the level of the liquid in the center of the cup.

Dry measures are designed to be able to level the sugar with a flat blade, such as a spatula or knife. It is hard to get correct measures of dry ingredients in a liquid measure or liquid ingredients in a dry measure.

Measure loose brown sugar by scooping the dry measure into the sugar and leveling it off without packing. Packed sugar means just that, and the final level amount can be determined with a flat knife blade.

Ounces are measures of both volume and weight, but they are different; a reason to use the metric system. The conversion chart above and recipes need to be read carefully to determine which ounce is being referred to.

Weight measures are more accurate and repeatable than volume measures. Weight measures are preferred where exact proportions matter in recipes. The advantage of volume measures is that they can be faster and more convenient.

