



ROLE OF INGREDIENTS

INGREDIENTS USED IN CAKE

- ▶ FLOUR
- ▶ SUGAR
- ▶ EGGS
- ▶ LEAVENING AGENTS
- ▶ COCO POWDER
- ▶ BUTTER
- ▶ SHORTENING
- ▶ FLAVOURING



STRENGTHENING AGENTS / TOUGHENING AGENTS

- ▶ THESE ARE THE AGENTS WHICH PROVIDE STRUCTURE TO THE CAKE.
- ▶ THE STRENGTHENING AGENTS HELP THE CAKE TO RETAIN ITS SHAPE AND STRUCTURE
- ▶ FLOUR AND EGGS ARE EXAMPLE OF STRENGTHENING AGENTS.

WEAKENING AGENTS/TENDERISERS

- ▶ THESE AGENTS HELPS IN MAKING THE CAKE SOFTER.
- ▶ WEAKENING AGENTS ARE SUGAR, BAKING POWDER AND BAKING SODA AND BUTTER.
- ▶ EXCESS OF THESE AGENTS CAN LEAD TO COLLAPSING OF CAKE.

STRENGTHENING AGENTS

- ▶ Flour and eggs provides the supporting structure and helps to retain shape and size.
- ▶ Flour contains starch which gelatinizes and stabilize the structure.
- ▶ These ingredients are also called tougheners

WEAKENING AGENTS

- ▶ Fat , sugar and leavening agents tenderize the structure .
- ▶ Excess of any ingredients can collapse the cake.
- ▶ These ingredients are also called tenderizers

FLOUR



CAKE FLOUR

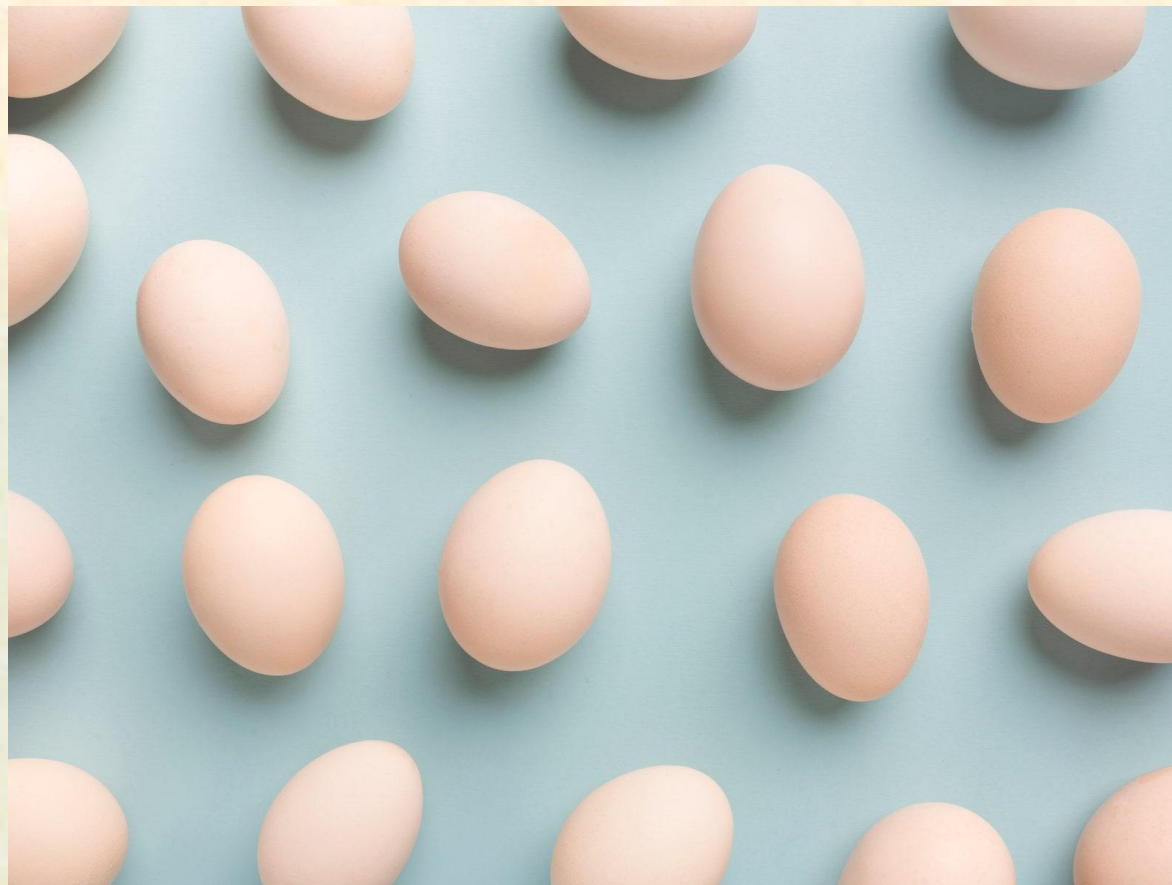
- ▶ Cake flour is made from finely milled soft winter wheat.
- ▶ It is high in starch and low in gluten.
- ▶ It has 7-8% gluten
- ▶ Cake flour is used in America. In India we use all purpose flour.
- ▶ To make cake flour-
1 cup all purpose flour – 1 tbsp. All purpose flour+ 1 tbsp. cornflour.
- ▶ Cake flour is chlorinated that means it is treated with chlorine gas.



CHLORINATION AND ITS USES

- ▶ Flour is treated with chlorine gas.
- ▶ It gives finer crumbs to the flour.
- ▶ Helps to absorb more moisture.
- ▶ Helps to provide better structure.
- ▶ Prevents cake from collapsing.

EGGS



EGGS

- ▶ Eggs give the structure and helps into air incorporation in the batter.
- ▶ It constitutes cake's liquid.
- ▶ Always use room temperature eggs as it helps in producing strong foam and providing stability.
- ▶ Also prevents the batter from curdling.
- ▶ AVERAGE WEIGHT OF AN EGG IS 45-50 gm.
- ▶ Egg white- 30 gm
- ▶ Egg yolk- 18- 20 gm
- ▶ Adding extra egg yolks in cakes lead to dense and heavy cakes.



SUGAR



CASTER SUGAR



ICING SUGAR



BROWN SUGAR

SUGAR

- ▶ Sugar contributes flavor.
- ▶ It gives color.
- ▶ Helps in air incorporation.
- ▶ Mostly we use caster sugar because the caster sugar has sharp edges which helps in air entrapping.
- ▶ Icing sugar consists of 3 % starch which avoids caking. Icing sugar is mostly used for icings like buttercream.



BUTTER

- ▶ Butter or fat tenderizes and aerates the cake.
- ▶ It prevents from excessive gluten formation by coating some of the gluten forming proteins in flour.
- ▶ The more the fat , the heavier will be the sponge.



SHORTENING

- ▶ Cheaper form of butter.
- ▶ It contains 100% fat.
- ▶ Made from vegetable oils
- ▶ Used by low budget bakeries as replacement of butter .
- ▶ We get different types of shortening in market like- cookie shortening, puff shortening etc.
- ▶ It is not advisable to use

COCO POWDER



TYPES OF COCO POWDER



COCO POWDER



**NATURAL COCOA
POWDER**

**DUTCH COCOA
POWDER**

**SWEETENED
COCOA POWDER**

ROLE OF COCOA POWDER

- ▶ Cocoa powder provides intense chocolate flavor. It has toughening effect on cake structure.
- ▶ Unsweetened natural cocoa powder is acidic in nature and reacts with baking soda. Whereas Dutch-processed cocoa powder is alkaline darker in color and reacts with baking powder.
- ▶ Coco powder dries out the cake so to compensate the liquid ingredients are high.
- ▶ Natural coco powder is acidic in nature that is why leavening agents are high.

BAKING SODA

- ▶ Also known as soda bicarbonate.
- ▶ It decomposes above 80 C.
- ▶ Reacts with acidic ingredients like natural cocoa powder, vinegar etc.
- ▶ Reacts once. Reaction produces CO_2 that causes rise in cakes.



BAKING POWDER

- ▶ Baking powder is a mixture of baking soda ,dry acid(cream of tartar) and cornfour.
- ▶ It is neutral in nature.
- ▶ Reacts twice. At the time of mixing wet and dry ingredients and second at the time of baking. That means it reacts with moisture and heat.
- ▶ Its lighter version of baking soda and can't be interchanged



SALT

- ▶ The only function of salt in cake is to heighten flavor. Without it the cake would have flat taste.

LIQUID

- ▶ For yellow or white butter cakes milk is preferred and water is usually preferred for chocolate butter cakes.

FLAVOURINGS

- ▶ **ESSENCE-** synthetic (i.e. chemically produced) **vanilla flavouring** and is cheaper than the natural **extract**.
- ▶ **EXTRACT-** a natural product made by soaking **vanilla pods** in a mixture of ethyl alcohol and **water**
- ▶ PUREES
- ▶ JAMS
- ▶ COMPOTES
- ▶ FRUIT JUICES
- ▶ COFFEE



FAULTS IN CAKE

MAKING

M FAULT

The cake sinks in the middle and doesn't rise.

Reasons can be:-

- too much raising agents .
- Oven too cold.
- Too much sugar.
- very weak flour.



X FAULT

Cake rise unevenly, corners sink and unfinished look from top.

Reason can be:-

- Uneven baking temperature.
- Uneven dispersion of raising agents.
- Too much liquid.



NOT ENOUGH VOLUME

Due to less aeration in cake batter, results in dense product.

Reason can be:-

- eggs not whisked.
- Too much dry ingredients.
- Oven

temperature too



CRACKED TOP

Undesired appearance in few cakes. Reason can be:-

- oven temperature too high at initial stages.
- Less quantity of raising agents



SUGARY TOP

Dark colored spots on the top of cake. Reasons can be:-

- Use of granulated sugar.
- Sugar doesn't dissolve, lack of moisture.
- Too much sugar in the recipe.



CURDLING OF BATTER

- Occurs when making batter .
Reasons can be:-
- Ingredients are at cold temperatures.
 - Eggs/liquids added too quickly.



IMPORTANT POINTS

- ▶ Sieve all the dry ingredients to aerate and remove impurities.
- ▶ Weigh and measure ingredients correctly.
- ▶ Prepared batter will collapse if left too long before baking.
- ▶ To check for 'doneness' , press lightly on the surface. It should spring back or can insert a clean skewer.
- ▶ Allow the cakes to stand in the moulds and take out once cooled.
- ▶ For storage always keep it covered in dry cool place either in refrigerator or freeze.