

ADVANCED BAKERY & CONFECTIONERY (Theory)

Name of the Programme	Duration	Semester	Course/ Course Code
B.Sc. in Hospitality Studies	Six Semester	VI	Advanced Bakery & Confectionery - (USHO604E)
Course Code	Title	Credits	
USHO604E	Advanced Bakery & Confectionery	2+4	

For Course Per week 1 lecture/period is 60 minutes duration				For Subject per week 1 lecture/period is 60 minutes duration			
	Theory	Practical					
Actual Contact	3	8					
Credit	2	4					

Course Code	Subject	Class Room Instruction									Total	Total Marks		Credits			Total
		Per Week			Per Semester			Per Semester Hrs				TH	PR	L	P	T	
		L	P	T	L	P	T	L	P	T							
USHO604E	Advanced Bakery & Confectionery	03	08	-	45	120	-	45	120	-	165	100	200	02	04	-	06

OBJECTIVES:

- To familiarize students on various aspects of bakery and confectionery management.
- To develop skilled professionals in bakery and confectionery for the hospitality industry.
- To develop students to become independent entrepreneurs.

Contents of syllabus for USHO604E

Unit No.	Chapter No.	TOPIC	Hours	Marks
01	1	Basic Of Bakery and Patisserie Revision	15	15

		1.1 Flour 1.2 Sugar 1.3 Leavening Agents 1.4 Fats & oils 1.5 Bread terms 1.6 Bread making		
	2	Cake Making 2.1 Formula Balancing 2.2 08 golden rules of cake making 2.3 Methods of cake making 2.4 Physical & chemical changes 2.5 Cake faults & Precautionary methods		
	3	Frozen Desserts 3.1 Introduction and History 3.2 Types (Ices, Ice Milk and Ice Cream)- Spuma, Granita, Sorbet, Parfait, Casatta, semi-fredo, Gelato, Bombe, Frozen Yogurt. 3.3 Manufacturing & processing of ice-cream		
Unit No.	Chapter No.	TOPIC	Hours	Marks
02	4	Meringues 4.1 Introduction 4.2 Types and methods 4.3 Precautions 4.4 Use and Storage	15	15
	5	Sugar Craft 5.1 Tools & Equipment 5.2 Sugar Craft Techniques 5.3 Flower making 5.4 Sugar garnishes 5.5 3D gum paste modelling 5.6 Wedding cake		
	6	Chocolate 6.1 History 6.2 Manufacturing process of chocolate & cocoa powder. 6.3 Types 6.4 Tempering 6.5 Use and storage		

Unit No.	Chapter No.	TOPIC	Hours	Marks
03	7	Icings and Toppings 7.1 Classification with advantages & disadvantages 7.2 Shelf life 7.3 Types	15	15
	8	Colours & Flavours		

		8.1 Types – (Normal & Artificial) 8.2 Rules given by FDA		
	9	International Desserts 9.1 Names & Country of Origin 9.2 Glossary terms (bakery & confectionery)		

List of Glossary Terms:

1. Angel Food Cake	34. Devil's Food Cake	67. Pate A Bombe
2. Baba	35. Dobos Torte	68. Pate brisee
3. Bagel	36. Docking	69. Pate Feuillette
4. Bagged	37. English Muffin	70. Pate Sablee
5. Baked Alaska	38. Focaccia	71. Pate Sucree
6. Baklava	39. Fougasse	72. Patisserie
7. Bloom	40. Frangipane	73. Petit Four
8. Buche De Noel	41. Frozen Mousse	74. Phyllo
9. Careme	42. Fruit Cobbler	75. Pithiviers
10. Ceme Patisserie	43. Galette	76. Pre – Ferment
11. Challah	44. Gateau St – Honore	77. Pullman Loaf
12. Charlotte	45. Gaufre	78. Quark
13. Charlotte	46. Gelato	79. Retarding
14. Charlotte Ring	47. Ice Cream	80. Sabayon
15. Chiffon Cake	48. Icebox	81. Sacher Torte
16. Chiffon Pie	49. Italian Meringue	82. Sacristian
17. Chocolate Couverture	50. Kirschtorte	83. Savarin
18. Ciabatta	51. Kungelhopf	84. Scones
19. Cobbler	52. Langue De Chat	85. Short cakes
20. Compote	53. Lattice	86. Short Dough
21. Conching	54. Lattice Crust	87. Shortbread
22. Confectionery	55. Leavening	88. Sorbet
23. Coulis	56. Linzertorte	89. Sorbetto
24. Coupe	57. Liqueurs And Fruit	90. St – Honore
25. Couverture	Alcohols	91. Stencil Paste
26. Cream of tartar	58. Marshmallow	92. Strudel
27. Crème Anglaise	59. Mimosa	93. Tablage
28. Crème Bavaois	60. Mousseline	94. Tarte Tatin
29. Crème Brulee	61. Naploen	95. Tirami-su
30. Crème Chantilly	62. Nougatine	96. Torte
31. Crème Chiboust	63. Opera Cake	97. Trifle
32. Crème Fraiche	64. Panna Cotta	98. Tunneling
33. Dacquoise	65. Pannetone	99. Vacherin
	66. Paris Brest	100. Zabaglione

CHAPTER 1. BASIC OF BAKERY AND PATISSERIE

REVISION

- 1.1 Flour
- 1.2 Sugar
- 1.3 Leavening Agents
- 1.4 Fats & oils
- 1.5 Bread terms
- 1.6 Bread making

FLOUR

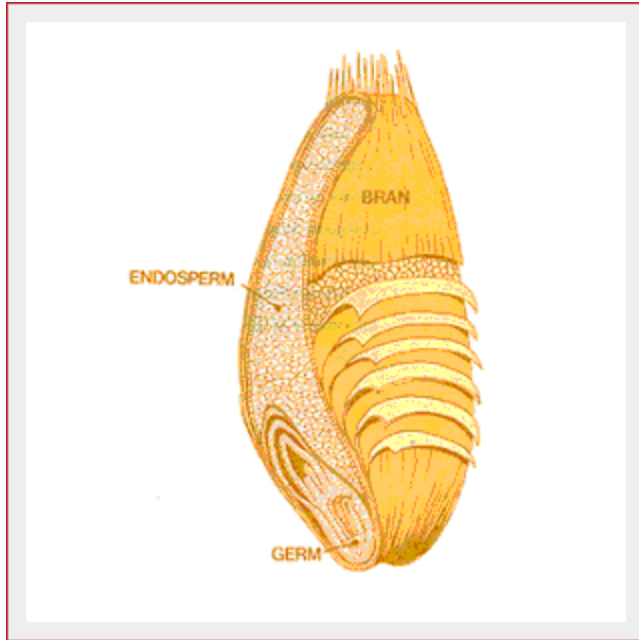
Flour is the principal raw material used in the manufacture of bread, cakes, cookies & pastries. It provides bulk & structure to these products. Flour indicates any foodstuff which is finely powdered e.g. rice flour, soya flour; corn flour etc. when there is no specific indication of the type of flour then it refers to refined wheat flour.

Wheat grows in almost every part of the world, except in extreme climatic conditions. However wheat flourishes best in temperate regions & the best quality comes from the American & Canadian borders under the names Manitoba , Minnesota hard winter etc. The other countries producing wheat are China, India, Australia, Iran, Turkey, U.K etc.

The commercially grown species of wheat are:

- 1. Triticum Vulgare-Suitable for cake-making.**
- 2. Triticum Durum-Suitable for spaghetti pasta, macaroni etc.**
- 3. Triticum compactum -Suitable for bread.**

The wheat berry is made up of three parts- Bran, Germ & Endosperm.



Types of flour:-

- 1. Whole wheat flour:** - has a dark color, it consists of all parts of the grain i.e. bran, germ & endosperm. This flour has a characteristic flavor. As this flour contains the germ (oil) it will have a storage life of only 6-8 weeks.
- 2. Straight flour:** - is flour from the entire endosperm. Because it contains the part nearer the bran as well as the whiter interior, the color of straight flour is darker in color than patent.
- 3. Patent flour:** - is milled from the inner part of the endosperm. Patent flour made from hard wheat is a **strong flour** of excellent quality & light cream color. Patent flour has 11% - 13% protein content.
- 4. Clear flour:** - the portion of the endosperm from the outer part of the endosperm nearer the bran thus is darker in color.

5. **Cake flour:** - is weak or low gluten flour made from soft wheat it has a very soft, smooth texture and pure white color. Cake flour is used for cakes & other delicate baked goods that require low gluten content.
6. **Pastry flour** – is also weak or low gluten flour, but is slightly stronger than cake flour. It has a creamy white color. Pastry flour is used for pie-dough, cookies, and muffins.
7. **All- purpose flour:** - medium quality flour which can be used for any type of baked items.
8. **Self- rising flour:** - is white flour to which baking powder (2%) & salt has been added.
9. **High-ratio flour:** - this is highly bleached, finely milled flour, made from wheat having good quality proteins. The fine milling increases the absorption properties of flour while chlorination increases the acidity & renders the starch more soluble making it possible to have a faster set in the oven & thus minimizing the possibility of escape of leavening gas. Mostly used in cake- making.

Other flours:

Rye flour: - contains some proteins but these do not form gluten.

Composition of flour

Composition of flour will vary depending upon the types of wheat used in the grist.

Starch - 71.5-74.5%, Moisture - 13.5-14.5%, Protein insoluble - 7-10%, Protein soluble - 1%, Sugar - 2.5%, Fat - 1%, Ash - 5%

Starch: Starch is not soluble in water but absorbs moisture through its cells, therefore it is necessary to protect flour from too humid atmosphere.

When starch is heated to about 60oC with about 6 times its weight of water, starch cells swell and the cell wall bursts. Starch becomes soluble in water and in concentrated form will form a gel. This process is known as **GELATINIZATION**. In case of bread, the water available to starch is less and the inner temperature of bread does not reach gelatinization point until the last stage of baking when it is time to take out the bread from the oven. Due to this reason the starch is partially gelatinized in bread.

Moisture – The next important constituent of flour is moisture. If moisture in flour is higher than 13-14%, the baker will be getting less of solid material and more of water for his money. If moisture content is high then it will reduce the water absorption power (WAP) of flour, resulting in less yield.

Protein – Flour contains soluble and insoluble proteins. Soluble proteins are useful in providing nourishment to yeast for its growth and reproduction during fermentation process. Two insoluble proteins **glutenin and gliadin form gluten when hydrated.** Glutenin gives strength to the dough in order to enable it to hold gases during baking operation and gliadin gives elasticity or stretch ability.

Sugar – Sugars in flour consist of maltose, sucrose and dextrose.

Ash-Ash content of flour is indicative of the degree of its purity with respect to bran fragments. Higher ash content means that flour contains too much bran fragments. Apart from darkening the colour of flour, the bran fragments have a cutting action on gluten strands which in turn will affect the volume of bread.

SUGAR

Sugar occurs naturally in almost all plant structures. However, for general and commercial purposes, it is obtained from two major sources:

1. Sugarcane
2. Sugar Beet

CLASSIFICATION OF SUGAR

Sugar may be classified under one or a combination of the following:

- The source, sugarcane or sugar beet
- The country of origin
- The method of processing which in turn will determine the type of sugar produced, e.g: cube sugar, powdered sugar
- Its uses e.g. specific sugars are bought for certain purposes like icing sugar is meant basically for icings.
- The chemical group – sugars may be classified into two chemical groups
 - Mono saccharides
 - di saccharides

MARKET FORMS OF SUGAR

Commercially, sugar is available in two forms:

- Solid
- Liquid

SOLID FORMS

1. Granulated sugar: By far the most important sugar product on the market and is also known as sucrose. Granulated sugar is marketed as fine (the type most commonly used) or ultra fine (used in the making of cakes and instant beverages).
2. Powdered sugar: This is obtained from granulated sugar, thru the process of pulverization. It is available in various degrees of fineness depending on the purpose that it is used for.
3. Brown sugar (perish the thought, it's not what you are thinking!): is composed of sugar crystals which are suspended in a flavored and colored molasses syrup and is often referred to as demerara sugar. Demerara sugar is brown sugar that comes from demerara in the West Indies.
4. Cube sugar: This is ultra fine granulated sugar which is compressed into small individual portion sized cubes. Very popular in fine dining restaurants. Sometimes is made out of powdered sugar as well.
5. Icing sugar: This is powdered sugar which has a small percentage of corn flour worked into the mixture. It gives a much smoother texture to the final product and as the name suggests, it's used to produce various icings.
6. Maltose: Also known as malt sugar is used as a sweetener, flavoring and coloring agent. It is also used in the manufacture of beer besides being used in malt beverages, instant beverages, milk shakes and candy.
7. Lactose: Lactose is commercially extracted from solutions of whey, by crystallization. It is added to bakery products because its presence contributes to the surface browning of baked products.
8. Invert sugar: Invert sugars are desirable in baked products and in candies because they resist crystallization and also retain their moisture.

LIQUID FORMS

Liquid sugars are available in the form of syrups. These syrups are liquid containing large amounts of sugar. Syrups can have a variety of flavors that make them a useful addition to other foods. The most frequently used syrups are:

1. Molasses: known commonly here in India as jaggery(gur), but in the liquid form. It is a by-product of the sugar industry (sugarcane). However, black jaggery is obtained from the date palm and is also referred to as palm jaggery. In the manufacture of sugar from cane, the sugar goes thru various stages of crystallization and refinement. The left overs and by products are used to produce molasses.
2. Maple syrup: Maple syrup is obtained from the sap of mature sugar maple trees. The characteristic flavor of maple syrup is obtained from the volatile oils in the sap that is then concentrated by boiling. Maple syrup is very popular in the USA where it is popularly served with flapjacks (American pancakes). It is also popular in Canada and the maple leaf even figures on the Canadian flag.
3. Honey: is made by bees from the nectar of flowers and is stored for future use in cell like structures called honeycombs. One property of honey that is very useful in cookery and bakery is its ability to retain water. Cakes and cookies that have honey as an ingredient will retain their moisture for a fairly longer time.

4. Corn syrup: Is used mainly to sweeten foods in the commercial production of foodstuffs. Corn syrup is a liquid sweetener consisting mainly of glucose or dextrose. It is made by converting cornstarch into simple sugar compounds by the use of enzymes.
5. High fructose corn syrup: This product is being used increasingly in commercial food production because of its intense sweetness. It is used in the manufacture of soft drink concentrates, fruit squashes, candy and some bakery products.
6. Glucose: is present in fruits in the natural form but commercially is sold as dextrose. It is used extensively in the commercial production of candy. It is also used widely in making Icings like gum paste, pastillage and such products.

FUNCTIONS OF SUGAR

1. As a sweetener in products such as cakes, cold drinks and commonly in tea and coffee.
2. To soften gluten in flour and to make baked products more tender to eat and lighter in texture.
3. To color baked products such as the crust of bread.
4. To retain moisture and prevent baked products in particular from drying out quickly.
5. To act as a preservative in jams, marmalades and canned fruit.
6. To help as an activator. Sugar helps yeast to grow faster by providing it with a readily available source of food and nourishment.
7. As an anti coagulant, sugar helps to delay the coagulation of protein in egg.
8. It is used as the main ingredient in icings and candies.

SHORTENINGS, FATS & OILS

Fats are solid at room temperature and melt when heated. Those used in cooking include butter, margarine, lard, suet and hydrogenated fat.

Oils are liquid at normal temperatures, but solidify at lower temperatures. Those commonly used in cooking are peanut (groundnut) oil, coconut oil, mustard seed oil, sesame oil, olive oil and safflower oil.

Shortenings are fats that are used in the baking industry and in confectionery.

HYDROGENATION OF OILS

The conversion of oil into fat is known as hydrogenation. The process changes the physical properties of the oil. Hydrogenation consists of treating oil under pressure and at a suitable temperature with hydrogen, in the presence of a catalyst, usually nickel. Under these conditions, the unsaturated fatty acids present in the oil combine with the hydrogen. This chemical process brings about a physical change, the liquid oil changing into a solid fat. The unsaturated fatty acids are chiefly those of the oleic type and are converted into stearic acid which is solid. The varying consistencies available in fats is due to the process of hydrogenation being stopped at various stages.

SHORTENINGS

Fats can be used as shortenings or as a cooking medium. In confectionery, fats impart their characteristic flavor as well as shortening qualities. Their effect is to coat and break down the gluten strands, so that instead of being hard and tough to eat, foods containing shortening break off short and melt readily in the mouth.

Factors to look for in Shortenings:

1. Creaming Value: This affects the volume of the item eg: cakes. The amount of air incorporated during creaming
2. Shortening value: The shortness it gives to the end product. Shortness is a quality essential in products such as biscuits & cookies.
3. Stability: Refers to keeping quality and shelf life.
4. Consistency: Hardness or Softness depending on the purpose, hardness for puff pastry, softness for cakes.
5. Water absorption Will affect the emulsification value of the shortening power:

As shortening agents, fats add to the nutritional and satiety values of flour mixtures like doughs and batters. They also contribute to the taste and flavor. The type of fat and the way it is incorporated will affect the texture (eg: short crust pastry and flaky pastry). Baking must be done at correct temperatures. As the fat melts during baking, it must be absorbed by the flour. If the heat is insufficient, the melted fat will run out and result in a hard product. Fat which has been broken up into small particles during creaming will be more easily absorbed than fat left in large pieces.

Fat as a frying medium functions in three ways:

1. it serves to transmit heat to the articles of food to be fried.
2. it adds to the nutritive value (calories).

3. It contributes to the flavor and taste and texture of the food.

Fat used as a frying medium must have; a high smoke point; low congealing point; low moisture content; high stability; acceptable flavor which is neutral

RENDERING OF FAT

Rendering of fat is the process of melting to extract fat from fatty tissues. A good supply of fat can be obtained in this way there are two methods to complete this process:

1. Cut the fat into small pieces, put them in a baking tray and heat in the oven till the fat has melted and only crisp brown pieces of tissue remains. Strain the fat through a clean cloth into a basin and store in the refrigerator.

2. Cut the fat into small pieces and cover with a little water. Boil, without the lid until the water has evaporated and the fat melts leaving behind only tissue. Strain and store as above.

In both cases, the temperature should not be too high as the fat will decompose.

CLARIFICATION OF FAT

This method of cleaning the fat. Used fat is mixed with water and allowed to boil. It is then strained and allowed to cool. The fat solidifies on the surface. This cake of fat is lifted out and the bottom scraped off all impurities. The fat is then heated till it stops bubbling and the water particles have disappeared.

In short, Fats & Oils can be classified as:

Animal Sources: Lard, Suet

Dairy Sources: Butter, Pure Ghee

Vegetable Sources: Refined oils (Peanut Oil, Corn Oil, Sunflower oil, Safflower oil, Sesame/ Sesame seeds/Gingelly oil (teel); Olive Oil, Soya bean oil, Coconut oil, Mustard oil etc

Margarine

RAISING AGENTS

Raising agents are also known as leavening agents. Leavening is the production or incorporation of gases in a baked product to increase volume and to produce taste and texture as well as shape. These gases must be retained in the product until the structure is set enough by the coagulation of gluten and /or egg protein to hold its shape. Exact measurement of leavening agents is important, because small changes can produce major defects in baked products.

TYPES OF RAISING/LEAVENING AGENTS

Biological: Yeast

Chemical: Baking powder, Baking soda, Baking ammonia

Mechanical: Air, Steam

YEAST

Fermentation is the process by which yeast acts on carbohydrates and changes them into carbon dioxide and alcohol. This release of gas produces the leavening action in yeast products. The alcohol evaporates completely during and immediately after baking. The process of fermentation is brought about by an enzyme called zymase.

Yeast is a microscopic plant. As a living organism, it is sensitive to temperatures.

45°F (7°C) Inactive; storage temperature

60-70°F (15-20°C) Slow action

70-90°F (20-32°C) Best growth, proofing temperature for dough

Above 100°F (38°C) Reaction slows

140°F (60°C) Yeast is killed

Yeast will contribute to flavor in addition to leavening action. There are various market forms of yeast, which are available.

Dried Yeast: is a mixture of yeast and cornflour or cornmeal, which are pressed into cakes and dried. The yeast continues to live, but in an inactive state. When furnished with warmth and moisture, it begins to develop and multiply, but this process is slow. Dried yeast has to be soaked in lukewarm water and mixed with very soft dough for a preliminary period before the other ingredients are added.

Activated Dried Yeast: This develops more rapidly than dried yeast and is the type that is most commonly used these days. It can be added straight into the flour. It is also less perishable than compressed yeast (see below). The shelf life of both dry and activated dry yeast is longer when stored in the refrigerator.

Compressed Yeast: This is a moist mixture of yeast plants and starch. The yeast remains active and will grow and multiply rapidly when added to dough. It has to be kept refrigerated and will keep well only for a few days. If held in the freezer, it retains its activity for a longer period.

CHEMICAL LEAVENERS

Chemical leaveners are those that release gases produced by chemical reactions.

Baking Soda: is the chemical sodium bicarbonate. If moisture and acid are present, soda releases carbon dioxide gas, which will leaven the product. Heat is not necessary for the reaction, although the gas will be released at a faster rate if the temperature is increased. For this reason, products leavened with soda must be baked immediately otherwise the gases will escape and the leavening power will be reduced. Acids that react with soda in a batter or dough would include honey, molasses, buttermilk, fruits, cocoa and chocolate. Sometimes, acids, such as cream of tartar are added to induce the production of carbon dioxide.

Baking Powder: is a mixture of baking soda and an acid such as cream of tartar and diluted with cornflour to give a product of the desired strength. The cornflour also serves to separate the acid

and the base, thereby increasing the stability of the mixture. General proportions used are 1 to 2 tsps /500 GMS of the flour or foundation ingredients. Baking powders are more versatile since they do not depend on acids for their leavening power. Do not include more baking powder in a recipe, as it will create an undesirable flavor.

Baking Ammonia: is the chemical ammonium carbonate. It decomposes during baking to form carbon dioxide gas and ammonia gas. Only heat and moisture are required for it to work. No acid is required for reaction to take place. Baking ammonia releases gases very quickly and can only be used in small products like cookies or in products like choux pastry where rapid leavening is desired. Because it decomposes quickly, it leaves no residue, which could affect the flavor.

MECHANICAL AGENTS

Air: is incorporated in a batter primarily by two methods. This air expands during baking and will leaven the product.

1. **Creaming** – is the process of beating fat and sugar together. Besides breaking up the fat into minute particles, it also incorporates air into the mixture. It is an important technique in cake making and in cookie making as well. Some pound cakes and cookies are aerated entirely by this method.

2. **Foaming** – is the process of beating eggs, with or without sugar, to incorporate air. Foams made with whole eggs are used for sponge cakes, while meringues, angel food cakes and soufflés are aerated with only egg whites.

3. **Steam:** When water turns to steam, it expands to 1600 times its original volume. Because all baked products contain some moisture, steam is an important leavening agent. Bakery products such as eclairs and cream puffs rely on steam for aerating. If the starting temperature for the baking of these products is high steam will be produced and rapidly aerate the product.

BREAD MAKING

There is a sense of mystery in watching basic ingredients like flour, water, sugar and salt respond to the power of yeast. The gluten stretches and expands as air pockets form. The sugar colours with the heat and become golden. What was simply a spongy mass miraculously becomes a veritable work of art, a very edible work of art.

Components and their Contribution to Bread Making

Bread is composed of various ingredients, each playing a particular role and contributing to the flavour and texture of the finished product. To be familiar and understand these ingredients is the first step in good bread making.

1) *Yeast*

It is a tiny living fungus that thrives on sweetness, warmth and moisture. Through the process of fermentation yeast acts on carbohydrates and turns them into carbon dioxide and alcohol. This carbon dioxide causes the rise in baked products. Alcohol evaporates during baking yet helps in development of flavour in the bread.

2) *Flour*

The main ingredient in any bread is flour, which gives it its structure. Wheat flour, with its rich protein called gluten, gives doughs their strength and elasticity. Gluten is capable of expanding greatly; thus creating a network of little pockets that trap the gasses produced by yeast that would otherwise escape. As discussed earlier, whole-wheat flour contains all of the wheat grain; i.e. bran,

germ and endosperm. All-purpose flour contains only the endosperm, which yields the highest percentage of gluten. Bread recipes that use yeast must contain at least some white or whole-wheat flour to provide gluten.

3) *Liquid*

It is the liquid in the dough that turns into steam during baking. This steam helps create texture in the bread. Water, milk or even beer can be used in bread making. The difference in breads will stem from the components within the liquid. Milk will produce richer bread with a tender crust and a less grainy taste. The proportion of liquids to flour will vary from formula to formula and is caused by the composition of the flour used and the liquid.

4) *Salt*

It has three primary functions in bread dough, the first being improvement of the bread's flavour and enhancement of the flavours of other ingredients. The second function is that it has an inhibiting effect on yeast fermentation. Salt reduces the gassing power of yeast, allowing the development of a uniform rise in the product. The third function is the strengthening and tightening of gluten in the dough. Thus salt, when used, should be in balance with the flour or results could be disastrous.

5) *Sugar*

This makes the dough rise quickly as well as helps brown the crust. Sugar should be used sparingly as too much will inhibit the action of yeast. Always follow the formula carefully. Granulated sugar is most commonly used, though other sweeteners like honey, molasses, corn syrup or brown sugar as well as raisins and dates can be used. They all add a different variety of flavour, texture and colour to the bread.

6) *Shortening*

It is often added to enrich bread, however it is not essential to any bread formula. Shortening gives flavour to the bread and makes it tender. Breads also keep longer and better. Shortening also must be used in limit as too much could inhibit the growth of yeast. In olden days hog lard was used in bread making, but today the preferred fats are vegetable shortening and butter.

7) *Eggs*

Eggs too are an optional ingredient in bread making. They provide richness, flavour and improve texture. Breads also have a longer shelf life if eggs are added to the dough. Eggs are best used in the production of sweet enriched dough.

8) *Other Ingredients*

Spices, dry fruits, nuts and various seeds and cereals are also used in bread dough. They contribute to flavour, texture and nutritional value of the bread.

Lean Dough and Rich Dough

There are many formulae for bread doughs. Some of these contain few or more enriching ingredients. Those that are low in fat and sugar are termed as lean doughs. They include hard crusted breads like French bread, Kaiser Rolls, and pizza bases. Dinner rolls and white bread are slightly enriched because they have a certain amount of sugar, milk and eggs added to the dough. These breads have a softer crust. Whole wheat and rye breads are made from lean doughs.

Dough that has a high percentage of enriching ingredients such as eggs, butter, sugar, fat and cream are termed as rich doughs. These include rich dinner rolls, brioche, sweet rolls, coffeecakes, Danish pastry, croissants and many tea rolls. They are usually made with a sweet filling or topping.

Steps in Making Bread/Stages in Kneading

1) Pick-up Stage

All the ingredients are distributed throughout the dough.

2) Drying-Up Stage

Gluten takes on water and starts to become sticky. On further kneading, it absorbs all the liquid and the dough becomes smooth.

3) Clean-Up Stage

The dough becomes smooth, stops sticking and is soft. At this stage fat is added and kneaded in to form a smooth soft dough free from cracks.

4) Fermentation Stage

Yeast present in the dough is activated and starts to act on sugars and starches in the dough, producing carbon dioxide and alcohol. This takes about 20-45 minutes.

5) Knock Back Stage

After the dough has fermented to nearly double its original size, it is punched with the fist or palm. This expels the carbon dioxide, redistributes the yeast for further growth, relaxes the gluten to prevent it from collapsing and equalises the temperature throughout the dough for uniform yeast activity.

6) Scaling and Rounding

The dough is divided into pieces with a dough cutter as pulling and stretching disturbs the gluten strands and texture will be affected. Each piece is weighed and allowances are made for *baking loss* i.e. the dough is weighed a little over-weight to compensate for the moisture that.

will evaporate during baking. The dough pieces are rounded into small smooth balls that make moulding easier.

7) *Benching/ Intermediate Proofing*

The dough is allowed to rest for 10-15 minutes. This allows the gluten to relax to make moulding more easier. Fermentation continues during this time.

8) *Moulding/ Panning*

The dough is shaped into loaves and rolls and placed on pans or baking trays. Pressure must be used when moulding to prevent uneven air pockets. For loaves and rolls, the seam must be centred on the bottom to prevent splitting during baking.

9) *Proofing*

It is a continuation of the process of yeast fermentation, which increases the volume of the shaped dough. It is the final fermentation of the moulded dough.

10) *Baking*

After the dough has acquired the required volume during proofing, it is placed in a hot oven. The temperature inside the dough gets higher due to the high temperature of the oven and thus the gasses trapped inside expand causing *oven spring*, which is a sudden change in volume of the product. Moisture from the surface of the dough evaporates, bringing about baking loss. Fat melts and lubricates the gluten and is finally absorbed by starch. Proteins and starches coagulate and gelatinise and the product becomes firm and holds its shape. Sugar on the crust caramelises imparting a golden colour to the crust.

Oven temperatures must be adjusted for the product being baked. Rolls spaced apart are baked at a higher temperature than large loaves, so that they brown in the time it takes to bake them. Rich and sweet doughs are baked at a lower temperature because their high content of enriching ingredients browns the crust too fast. Hard crusted breads are baked with steam injected into the oven at the beginning. This aids in the formation of a thin crisp crust. A break on the side of the loaf or roll is caused due to under-proofing of the product before baking. It is also caused by continued rising after the crust is formed. To allow this final expansion, hard crusted breads are slashed or *scored* before baking. Small rolls are not usually scored. Baking times vary depending on the product. A golden crust colour is usually a sign of doneness and loaves should sound hollow when thumped, if they are done.

Methods of Bread Making

1) Straight Dough Method

In this method, yeast is dissolved with a portion of the liquid. The rest of the ingredients, except flour, are combined with the remainder of the water and mixed. The flour and yeast solution is added and the dough kneaded until it is smooth. Shortening is kneaded in last. Fermentation is longer in this type of dough as yeast is less.

2) No-time Dough Method

In this method, all the ingredients are mixed in a once and the dough is used immediately. Yeast is more and the fermentation period is eliminated.

3) Sponge Dough Method

Here a ferment is made with yeast, part of the liquid, sugar and salt. It is kept to ferment and only then is the rest of the flour and liquid added.

4) Ferment Dough Method

Similar to sponge dough method, only fat and sugar content is higher.

5) Salt Delayed Method

This is a variation of the straight dough method. Salt is added only after 2/3 of the fermentation time is over. Yeast multiplies at a faster before being inhibited by salt. Therefore, fermentation is faster.

6) Sour Dough Method

Left over dough is kept until it over-ferments and turns sour. This is added to the new dough and acts as a partial substitute for yeast. It provides a distinct flavour to the bread.

7) Hot Dough Method

The temperature of the dough is maintained at 88°F by using lukewarm water. This is done when there is shortage of time and fermentation has to be done faster. The quality of the bread made by this method is not so good.

8) Continuous Bread Making Method

This is a machine method of making bread. A liquid broth of yeast, water, sugar, milk solids, salt and yeast food is prepared in steel tanks by mechanical agitators. The temperature of the broth is maintained at 86°F. After the broth is fermented, it is pumped into an incorporator where flour and fat are roughly mixed in. It then moves on to the developers where gluten is developed by high speed mixing. It then goes on to dividers where the dough is measured, cut out and moulded. It is then placed on greased trays ready to proof and bake.

Faults in Bread Making

Shape Faults

- 1) *Poor Volume*: Too much salt, too little yeast, weak flour, over or under mixing, improper fermentation or proofing, oven too hot.
- 2) *Too much volume*: too little salt, too much yeast, too much dough scaled, over-proofed.
- 3) *Poor shape*: too much liquid, improper moulding, improper proofing, too much steam in oven.
- 4) *Split or burst crust*: over-mixing, under-fermentation, improper moulding (seam not on bottom), oven too hot, not enough steam in oven.

Texture and Crumb Faults

- 1) *Too dense or close grained*: too little yeast, under-proofed, too much salt, too little liquid.
- 2) *Too coarse or open*: too much yeast or liquid, incorrect mixing time, improper fermentation, over proofed, pans too large.
- 3) *Streaked crumb*: improper mixing procedure, poor moulding or make up techniques, too much flour used for dusting.
- 4) *Poor texture or crumbly*: fermentation time too long or too short, over-proofed, oven temperature too low, flour too weak, too little salt.

Crust Faults

- 1) *Too dark*: too much sugar or milk, under-fermentation, oven temperature too high, baking time too long, insufficient steam at beginning of baking.
- 2) *Too pale*: Too little sugar or milk, over-fermentation, over-proofed, oven temperature too low, baking time too short, too much steam in oven.

Cake Making

- 2.1 Formula Balancing
- 2.2 08 golden rules of cake making
- 2.3 Methods of cake making
- 2.4 Physical & chemical changes
- 2.5 Cake faults & Precautionary methods

CAKES

Cakes are usually divided into 3 groups on the basis of their ingredients (whether or not they contain fat) and the appearance of their batter. The various types of cakes are:

SHORTENED OR BATTER TYPE CAKES CONTAINING FAT

UNSHORTENED OR FOAM TYPE CAKES

COMBINATION OF TWO METHODS

SHORTENED OR BATTER TYPE CAKES CONTAINING FAT:

Layer cakes, pound cakes, cup cakes, and fruitcakes fall into batter type category. They contain shortening or fat in relatively large amount, which is not present in the foam cake. The ingredients are slowly mixed together in a smooth dense, well-blended batter. The batter made in one mixing bowl using the creaming method or the quick mix method (blending).

The creaming method is the blending and creaming the fat to increase its pliability and incorporate air. The sugar is beaten in gradually and whole eggs or yolks are then thoroughly mixed into the Fat – Sugar combination. Flour containing the leavening agent is added to the creamed mixture. If necessary liquid is also added alternatively with the flour

The quick mixture or blending method is used in making high ratio type cakes. These are cakes with a high ratio of air to fat, which make them light. The flour, sugar, shortening and part of the milk are blended together in one mixing bowl. The remaining milk is combined with the flavorings and eggs, added to the batter, and mixed again.

FRUIT CAKES:

Fruit Cakes are rich batter type cakes shortened with butter and filled with fruits. They are traditionally served during the Christmas season but are enjoyed at any time of the year. The ideal temperature for baking is 150°C

Preparing the Fruits:

Since the distinctive character of these cakes is the fruit, they contain. The preparation of fruit is very important. The fruit should be examined and sorted to remove all stems, seeds or other considerable material. Once it is stored, it should be thoroughly washed. Warm water is best as it cleans the fruit better, removes excess sugar from the candid fruits and softens the glazed fruits and Raisins so that they will plum faster and become tendered. A tender moist fruit improves eating qualities increase moistness and extends keeping quality.

After the fruits are washed it should be drained well. Tough candid fruits should be sliced as thinly as possible to prevent them from crumbling or tearing the fruitcake as it is sliced. Cherries should be half, Pineapple diced and Dates quartered. The prepared fruits should then be soaked in 'Rum' or 'Brandy' for additional flavoring. In addition to enhance flavor Brandy or Rum exerts a preservative action on fruit cakes and thus assists in retarding mild development when fruit cakes are stored for a relatively longer period of time. As an additional precaution (when a long storage period is intended) the use of commercially manufactured inhibitors in a fruitcake formula is advisable.

The prepared fruit should be placed in a large clean covered container and allowed to stand overnight. This tempering period will soften the fruit and enhance the various fruit flavors.

BAKING TEMPERATURE AND BAKING LOSSES:

Some types of fruitcakes will lose more moisture in baking than others will. The loss depends on care taken in mixing the basic cake batter, the correct preparation and the condition of the fruits used as well as the oven temperature at which the given cake is baked. Smaller ingredients are baked at a higher temperature and for a shorter time than larger units.

UNSHORTENED OR FOAM TYPE CAKES:

Angel's food cakes and sponge cakes fall into this category. They are so called because they require no shortening and the body of the cake batter, as well as the support framework of the baked cake, depends upon the aeration of beating of the eggs into foam like mass to provide volume.

Angel food cakes are made with egg whites, they contain no egg yolk, and no shortening and are therefore fat free. Angel's food cake recipes called for cream of tartar, (an acid that helps to produce a finer, whiter grain and acids in stabilizing the foam of the beaten egg whites). The whites are beaten until the foam makes a soft peak. The greater part of the sugar is beaten into the foam gradually to make a meringue.

Sponge cake quality depends on thorough beating of the eggs and sugar. The sugar and eggs or the sugar and yolks may be whipped together, added to the beaten egg whites and the mixture is folded in after the flour has been added. Sponge cake, unlike Angel cake may have some leavening added. The most common fault in making sponge cake is insufficient beating of the eggs and sugar.

COMBINATION OF THE TWO METHODS:

Chiffon Cakes:

Combination foam and batter type cakes are the Chiffon variety. In chiffon cakes the fat used is always oil. Water, flour, oil and part of sugar are thoroughly blended into a batter and the batter is then folded into foam consisting of beaten egg whites and sugar. When they are baked Chiffon cake resembles foam type cakes rather than batter type cakes.

CAKE MAKING METHODS:

There are 4 types of cake making methods

1. Sugar batter or Creaming method
2. Flour batter
- 3 3. Blending
- 4 4. Boiled

5

6 SUGAR BATTER OR CREAMING METHOD:

7 In this method the mixed fats and sugar mixture is creamed together until light and fluffy. The time for this is about 10 min. depending upon the creaming qualities of the fat and the speed.

8 Vertical cake mixers running at 90 R.P.M. is about normal for this process. When adequate aeration is achieved in the fat and sugar mixture, then the eggs are added gradually after every 5 – 7 min. with a good creaming between each addition. This is to ensure that curdling of batter does not occur at this stage. Curdling is breaking down of emulsion due to the fat separating out from the aqueous phase.

- 9 When all the eggs have been creamed in, it should have a nice and soft velvety feel. At this stage any required flavors are added.
- 10 Lastly the flours, which has been mixed with the other powders (baking powder, milk powder, mixes spices etc.) is added and mixed gently into the batter. The milk or water is added at the same time to bring the consistency and the mixture to a definite level of softness in the batter. In all cake making method temperatures of ingredients and time for creaming and mixing must be controlled if consistent results are to be obtained. The optimum temperature for all the ingredients is 35°C

11 **FLOUR BATTER METHOD:**

- 12 In this method the mixture of flour fat and is creamed with its own weight of flour or a little less until a light creamy mass is obtained. A proportion of 350 gms of flour to 450 gms of fat is about the best.
- 13 Eggs and equal quantities of sugar are whipped to a stiff froth. While this process is going on the remaining flour should be sieved with the baking powder.
- 14 When egg sugar mixture is whipped to a stiff froth it is amalgamated in the creamed mixture of fat and flour. Although there is less risk of curdling of the batter, the egg mixture should be added in small portions at a time after each addition it should be amalgamated thoroughly before the next portion is added. Remaining sugar dissolved with milk or moisture should be added at this stage. The remainder of flour sieved with baking powder is added. Creaming the batter after each addition because in cheaper cakes more milk and extra sugar must be added, these should be mixed together and added with the flour after the egg has been added in. Finally the fruit is added while clearing the batter. Richer type of Madeira and fruitcakes are often made with this method.

15 **ADVANTAGES:**

- 16 1. Major part of the flour is coated with fat before any moisture is added so the development of gluten is avoided. This factor makes it possible to use slight stronger flour which otherwise is unsuitable for cake making.
- 17 2. Very little quantity of flour remains to be added at the last stage of mixing liquid already present in the mixture may toughness of gluten. However the small amount of flour does not require much of mixing at the last stage and so toughening does not take place.
- 18 3. When eggs and sugar whisked to a stiff sponge added to the creamed fat and flour mixture the chances of curdling is less. Flour present in the mix acts as a stabilizer and prevents curdling.
- 19 4. Initial creaming of fat and flour and thorough whisking of eggs and sugar provide sufficient moisture during the last operation of mixing. This prevents over mixing of flour added at last stage and the cake acquires a good texture.

20

21 **BLENDING METHOD:**

- 22 In this method emulsified fat, flour, baking powder and salt are whisked together to a very fluffy consistency. Sugar, milk, color and flavor are mixed together and added last and the whole mixture is mixed to a smooth batter. This method is suitable for high ratio cakes in which quantity of sugar is more than the flour. Emulsified type of fat and special cake flour is required for this type of cake.

23 **BOILED METHOD:**

- 24 In this method butter or margarine is placed in a vessel and heated till entire butter melts and water in it starts to boil (hence boiling method) remove the vessel from fire, cool and add the flour all at once and mix thoroughly.
- 25 Eggs and sugar are beaten to stiff froth, colored and flavored are added while whisking the egg and sugar. This beaten mixture is added in the fat flour mixture in about 4 – 5 equal parts. After each addition the mixture is thoroughly mixed with wooden spoon, when mixture is getting smoother then it is added in the desired tin. This method is used for good quality Genoise and sponge cakes.

26 **GOLDEN RULES FOR RECIPE BALANCE:**

- 27 1. Eggs can aerate their own weight of flour in excess of weight of eggs must be aerated chemically by baking powder.
- 28 2. Small cakes require more baking powder than big cakes due to less handling time and more handling. Plain cakes require more baking powder than rich cakes as the batter contains more eggs, fat and sugar.
- 29 3. Fat controls the quality of the cake; however the fat in sponge recipe is cheaper than the quality of the cake. A good quality fat can take a maximum $\frac{1}{4}$ th part of eggs without curdling. Weight of fat should not exceed weight of flour and weight of eggs.
- 30 4. When eggs are reduced in a recipe the quality of cake is poor. If the quantity of milk and baking powder is increased extra sugar to be used.
- 31 5. When non-sweetening material like milk and flour is added sugar is increased to maintain sweetness of the cake. The weight of sugar should be approximate 25% of the total weight of fat, eggs, flour and milk.
- 32 6. Cheaper cakes require stronger flour than rich cakes.
- 33 7. Eggs can moisten equal weight of flour so excess flour is moistened by milk but moisture content of milk (85 – 90 %) is more than that of eggs (74 %) so add milk at the rate of (0.9) part milk for every one part of flour in excess of egg. The exact amount depends on the WAP of flour.
- 34 8. Salt content of a recipe will vary 1 % to 2%. This depends on the amount of sugar used in the formula and amount of flour desired.
- 35 9. When syrup like honey is used necessary changes in moisture content of formula should be named.
- 36 10. Corn flour, cocoa powder, rice flour and ground almonds count as flour in calculating moisture and aeration.
- 37 11. In heavy fruited cakes the proportion of flour may be less than necessary in light fruited or plain cakes.
- 38 12. Ground almonds are enriching and binding agents useful in best quality cakes to give sufficient stability to the cake batter without the addition of too much flour.
- 39 13. When extra yolks are used in the recipe increase liquid content as moisture content of egg, yolk is less than that of whole egg.
- 40 14. Excess of milk solids are undesirable as they toughens the cake.

JUDGING CAKES:

1. Batter Type:

Outer Characteristics:

- ✓ Shape: Uniform slightly rounded top, free from peaks and cracks.
- ✓ Size: Uniform, light in weight, in proportion to its size
 - ✓ Color: Uniform golden brown.
- ✓ Crust: Tender, smooth.

Inside Characteristics:

- 41 ✓ Color: Uniform
- 42 ✓ Grain: Fine, round thin walled, cells evenly distributed and free from tunnels.
- 43 ✓ Texture: Tender, velvety, moist neither soggy nor crumbly.
- 44 ✓ Flavor: Pleasing well blended.

45

2. Foam Type:

47

Outer Characteristics

- 49 ✓ Shape: uniform free from cracks (sponge), slightly rounded top (chiffon)
- 50 ✓ Size: very light in weight in proportion to size, large volume.
- 51 ✓ Color: uniform, golden brown (chiffon), light brown (sponge).
- 52 ✓ Crust: tender, free from spots or moist, shiny appearance (sponge), cracks on surface (chiffon)

53

Inside Characteristics:

- 55 ✓ Color: Uniform
- 56 ✓ Grain: Small uniform thin walled cells, no large air spaces or compact layers, springy crumb
- 57 ✓ Texture: Tender, feathery, moist, light not compact or soggy.
- ✓ Flavor: Pleasing and delicate.

CAKE FAILURE:

For successful cake making it is absolutely essential that the proper procedure to be followed. Cakes are delicate and therefore cake making is subject to many errors, knowing what went wrong and why? This will help the baker to prevent the same mistake in the future. A common mistake is low volume cake this is usually due to under or over measuring of the liquid, using a pan that is too large or baking in an oven that is too slow or too fast. A fallen cake is due to under baking or under measuring the liquid, using a pan that is too small, soggy cake is due to excess of liquid and under baking. Uneven cakes are caused due to uneven air circulation and baking pans that are placed too closer. Cracks in the top of the cake are generally caused by over baking and using an oven that is too fast.

58 **ICING AND CAKE DECORATION:**

- 59 Most cakes made by batter process need icings or toppings and fillings to give them eye appeal and taste. Pound cakes and foam cakes do not require icing. It is just as important to use the fastest and best ingredients for icing as it is for cakes. Icings retain the moisture in the cake and enhance the flavor. Cake fillings and icings must compliment each other. By using a variety of filling and icing an assortment of cakes can be prepared to give the menu variety.
- 60 The principle ingredients used in the icing are sugar, water, fat, eggs, milk, stabilizers, flavoring, salt and coloring.
- 61 **SUGAR:** Sugar in any of the several forms can be used in icing. Confectioner's sugar gives good results in most icing. Its fine powdery texture promotes smoothness. Granulated sugar is satisfactory and is more economical for boiled icing. Sugar syrup such as corn syrup and glucose are used for smoothness and to retard the graining of icing. Water is used to make flat icing and to dissolve the sugar when making syrup and boiled icing.
- 62 **FAT:** Butter and emulsified type shortening is used for butter cream and other fatty type icing. The shortening should have neutral flavor and taste. Butter should be of high quality and no signs of rancidity. Sweet butter is the best. In most butter creams butter is used with the shortenings to reduce the cost and increase the volume of icing.
- 63 **EGGS:** Eggs should be fresh so that they whipped to large volume.
- 64 **FLAVORINGS:** Flavorings are usually what people taste first when eating a cake. It is therefore very important to use flavorings for a highest quality.
- 65

CAKE FAULTS:

Common cake faults are divided into:

Shape faults

Structural faults

Texture faults

Crust faults

Color faults

Miscellaneous faults

SHAPE FAULTS: Possible Causes

Collapsed cake with white surface spots

Too much sugar

Too little liquid

Baked with Peaked top

Flour too strong

Insufficient aeration

Too much top heat

Cake with flat top

The excess of grain opening ingredients

Effects and Remedies

Too much sugar in the formula causes the cake to collapse and leaves sugar particles showing a white spot on the top surface of the cake. When too much sugar is used the cake expands beyond the structural limit of the flour and eggs. So that collapse occurs towards the end of the baking periods.

To avoid this formula must be correctly balanced and the sugar correctly weighed. Under weighing liquid can also cause similar faults.

Soft flour is normally used for general cake making. When strong flour is used for cakes the cake batter develops. This has a toughening effect on the batter which causes peaking. This can be caused by incorrect either over or under mixing. Over mixing tends to drive out the air beaten in the batter. This loss of air prevents the cake from expanding evenly and properly which causes cake with low shoulder and a peak in the center. While the under mixed cake batter will not have enough air to expand properly.

Correct mixing time and batter consistency should be observed.

Too much top heat in the oven will put the cake up in the center and set it early in the baking time. The crust will then burst as cake will expand during baking. This fault can be corrected by either reducing the top heat or baking under covers.

Sugar and leavening agents are the ingredients, which tend to open the texture of the cake.

Too much baking powder or sugar causes the cake to expand beyond the holding powers of the structural ingredients, flour and egg. This

will result in a slight collapse giving a flat topped cake with an open texture.
Correct formula balance and careful weighing of the ingredients will avoid the fault.

Frozen Desserts

3.1 Introduction and History

3.2 Types (Ices, Ice Milk and Ice Cream)- Spuma, Granita, Sorbet, Parfait, Casatta, semi-fredo, Gelato, Bombe, Frozen Yogurt.

3.3 Manufacturing & processing of ice-cream

Frozen Dessert

Frozen dessert is the generic name for desserts made by freezing liquids, semi-solids, and sometimes even solids. They may be based on flavored water (shave ice, sorbet, snow cones, etc.), on fruit purées, on milk and cream (most ice creams), on custard (frozen custard and some ice creams), on mousse *etc.*

Frozen dessert thus can be classified under

1. Ice-cream
2. Sherbet/Sorbet
3. Still Frozen dessert

1. Ice-cream

It is a smooth frozen mixture of milk, cream, sugar, flavouring and sometimes eggs. Some ice-creams contain eggs and some ice-creams contain no eggs. Eggs help to richen and help to make a smooth product because of the emulsifying properties of the yolk.

2. Sherbet/Sorbet

Sherbets are made from fruit juices, water (ice) and sugar. Ice-creams and sherbets are constantly churned while being frozen. The churning keeps the ice crystals small and avoids the mixture from going into a solid block of ice.

3. Still Frozen dessert

Soufflés and mousses are classified under Still Frozen Desserts. The ingredients used are custard, whipped cream, beaten egg white which is folded in the mixture to give them lightness. This allows them to be still frozen in an ordinary freezer.

Some examples of frozen desserts

Spuma: Italian for 'foam' or 'froth', **spuma** is an airy type of sherbet made with egg whites beaten with boiling sugar syrup. This frozen specialty is also known as spoom

Granita: **Granita** is a semi-frozen dessert made from sugar, water and various flavorings. Originated in Italy.

Sorbet: is a frozen dessert made from sweetened water with flavouring (typically fruit juice or fruit purée, wine, and/or liqueur).

Parfait: In France, parfait refers to a frozen dessert made from a base of sugar syrup, egg, and cream.

In the UK parfait refers to a very smooth meat paste (or pâté), usually made from liver (chicken or duck) and flavoured with liqueurs.

In The United States, parfait is made by layering parfait cream, ice cream, and/or flavored gelatins in a tall, clear glass, and topping the creation with whipped cream, fresh or canned fruit, and/or liqueurs.

Casatta: is a frozen dessert similar to an icecream cake. It is made by layering 3 different kinds of icecream with a layer of genoise sponge.

SemiFreddo: Semifreddo is a class of semi-frozen desserts, typically ice-cream cakes, semi-frozen custards, and certain fruit tarts. It has the texture of frozen mousse because it is usually produced by uniting two equal parts of ice cream and whipped cream.

Gelato: Gelato plural: gelati, is the Italian word for ice cream. Gelato is made with milk, cream, various sugars, and flavoring such as fresh fruit and nut purees.

Bombe: A bombe glacée or simply a bombe in English, is an ice cream dessert frozen in a spherical mould so as to resemble a cannonball, hence the name.

Frozen Yogurt: Frozen yogurt (also spelled frozen yoghurt; also known by the tradenames FroYo and Frogurt) is a frozen dessert made with yogurt. It is more tart than ice cream, as well as being lower in fat (due to the use of milk instead of cream).

What is Ice-cream?

Definition

The frozen food obtained from cow or buffalo milk with or without the addition of sugar, eggs, fruits, fruit juices, preserved fruits, nuts, chocolate, edible flavours and permitted food colours. The mixture may contain stabilizers and emulsifiers not exceeding 0.5% by weight. The mixture should be suitably heated before freezing. The product should contain not less than 10% milk fat, not less than 36% total solids.

Manufacturing Process of Ice-cream

Ice-cream is a complex system in which the stable mixed emulsion of four phase system fat-water-ice-air, must be balanced and protected from breaking and separating.

The ingredients used in ice-cream manufacture are milk, skim milk powder, cream, butter fat, sugar, stabilizers, emulsifiers, food grade flavour and permitted colours.

Cocoa, dried and fresh fruits, nuts, fruit pulps, honey etc are used to produce different varieties of Ice-cream.

The following steps are involved in the processing of Ice-cream

- i. Pasteurization
- ii. Homogenization
- iii. Cooling
- iv. Ageing
- v. Freezing
- vi. Hardening & Storage

- i. Mixing and Pasteurization: the ingredients are heated together in jacketed tank.
- ii. Homogenization: The ice-cream mix is passed under pressure through small outlets. The mix is now converted into a true emulsion and the fat globules are dispersed evenly in the mix.
- iii. Cooling: the emulsion is immediately cooled down to 4°C using a heat exchanger.
- iv. Ageing: the cooled emulsion is stored in thermostatically controlled vessel for 2 to 8 hrs because such ageing improves freezer performance.

- v. **Freezing:** Freezing is carried out continuously in a scraped surface heat exchanger at a very low temperature of -22°C to -25°C under high agitation. Ice-cream mix and air are pumped in the desired proportion successively through the freezer. The ice-cream is then shaped and packed in small and large containers.
- vi. **Hardening & Storage:** the temperature must be further reduced after freezing until 80% of the water is frozen. This freezing should take place quickly to avoid the formation of large crystals. The ice-cream mix is hardened by freezing the mixture at -40°C for about 30 minutes.

Functions of some ingredients in Icecream:

- i. **Sugar:** Sugar represents half the total solid of icecream mix and includes lactose naturally present in milk. Sugar acts as sweetening agent, depresses the freezing point of the mix, influences the consistency of the continuous phase, and to some extent controls the ice crystal size of the frozen icecream.
- ii. **Stablizers:** Gelatin was the first stabilizer used in Ice-cream manufacture. Since then, a number of polysaccharide stabilizers have become available. These include; sodium alginate, agar agar, pectin, guar gum, xanthan gums.

Stabilizers perform several functions in icecreams

- a. Increase viscosity in continuous phase.
- b. They contribute to the eating characteristics like body and creaminess.
- c. They regulate the development of ice crystals and thereby resulting in a smooth textured ice-cream.
- d. During the inevitable temperature fluctuations encountered in the storage, transportation and distribution, they minimize the development of large crystals.
- e. They thicken the aqueous phase and modify the crystallization of icecream.

4-Meringues

- 4.1 Introduction
- 4.2 Types and methods
- 4.3 Precautions
- 4.4 Use and Storage

Meringues are whipped egg white sweetened with sugar (beaten together until very light)
There are several types of meringue which are as follows

1. Cold Meringue
 2. Hot Meringue
 3. Boiled Meringue
 - a. Italian Meringue
 - b. Swiss meringue
 4. Hard Meringue
1. Cold Meringue: It is made with egg white at room temperature beaten with sugar. The egg white and cream of tartar are whipped together. As the foam is formed add sugar gradually till a very firm meringue is produced.
 2. Hot Meringue: hot meringue is made with a greater percentage of sugar to white. The sugar is heated in the oven and then a meringue is prepared with this warm sugar using the same method used for the cold meringue.
 3. Boiled Meringue:
 - a. Italian Meringue: it is made by adding sugar syrup the egg whites. This meringue is the most stable because the egg white are cooked by the heat of the sugar syrup.
 - b. Swiss Meringue: it is made by beating the egg whites and the sugar over a double boiler.
 4. Hard Meringue: the meringue is baked until crisp and the meringue has twice as much as sugar as egg white.

Guidelines for making meringue:

1. Fats prevent egg white from foaming properly. Thus it is important that all equipment should be free from any trace of fat or grease.
2. There should be no trace of egg yolk in the meringue mixture.
3. Egg white foam better if they are at room temperature then if they are cold.
4. Don't over beat. Over beaten meringue look dry and curdled.
5. Sugar makes egg white foam stable. Meringues are thicker and heavier then unsweetened egg white foam and they are more stable.
6. Mild acids help foaming. A small amount of lemon juice or cream of tartar added to egg white for whipping gives more volume and stability.

Uses of Meringues

1. Meringues eaten like biscuits are baked at a very low heat for a long time. One name for them is "Forgotten Cookies" as they can be left in a gas oven for long periods of time after the cooking is done. They are not supposed to be "tanned" at all, but they need to be very crisp and dry. They will keep for at least a week if stored in an airtight container.
2. Meringue can be used as the basis for various other desserts including angel food cake, pavlova, Baked Alaska, Queen of Puddings, Key lime pie, and lemon meringue pie. In these cases, the meringue may be cooked at a higher temperature for a shorter amount of time, resulting in a soft meringue with slightly browned peaks on top.
3. Another dish is "Meringue de Angel", which consists of shortbread biscuits layered with meringue and lemon curd, topped off with drizzled lemon glaze. Variations include raspberries, peaches, mangos, blueberries, blackberries, pineapple, papayas, honeydew, oranges, cantaloupe, or cherries and strawberries.
4. Meringue may be used for embellishment. It can be formed into whimsical shapes, like mushrooms, or piped into a crisp basket that is baked and filled later with cake, fruit, or flowers.
5. Meringue tart. - A meringue tart is a sponge cake covered with meringue

The only trick is keeping the meringue crispy beyond that first day...Made primarily of sugar and egg whites, meringues are hydroscopic. This means that they absorb moisture from the air and will start to soften and 'weep' after just a few hours on the counter. As soon as your meringues have cooled completely, pack the meringues into an air-tight container and store in a cool place

Chapter :5 Sugar Craft

- 5.1 Tools & Equipment
- 5.2 Sugar Craft Techniques
- 5.3 Flower making
- 5.4 Sugar garnishes
- 5.5 3D gum paste modelling
- 5.6 Wedding cake

What is Sugarcraft ?

Sugar craft can be described as three-dimensional cake decorating. It covers a huge variety of styles, and includes characters and models made from sugar paste or fondant, to amazingly lifelike and botanically correct flowers.

Fondant is usually used to cover a cake – and can be bought pre-coloured, or can be coloured to exactly the right shade, usually using colour pastes. You can also use dusts in various colours to “paint” or brush colour onto your finished work.

Some of the most popular companies that manufacture Sugarcraft items are Wiltons, Sugarflair, Orchard Products. You can buy a huge array of tools, boards, cutters, plungers, colours, pastes, dusts and much much more to make your work easier.

Sugar Craft Techniques

6. 1) Sugar sculpture

- 7. **Sugar sculpture** is the art of producing artistic centerpieces entirely composed of sugar and sugar derivatives.
- 8. Sugar showpieces can be composed of several different types of sugar elements. All begin with cooking sugar, and possibly an acidic agent and/or non-sucrose sugar product to avoid unwanted crystallization, to the hard crack stage, around 300 °F (149 °C).
- 9. When all components are completed, they are welded together using a gas torch. The sugar is melted, and then joined together.
- 10. Types of sugar sculpture

11. 2) Pulled sugar

- 12. Once the sugar has been cooked, the now-liquid sugar is poured onto a silicone rubber mat (e.g., Silpat). Any coloring is now added. The sugar is then folded repeatedly into itself, until the sugar is, while still flexible, cool enough to handle. The sugar is then stretched out and then folded on itself repeatedly. This process incorporates air into the sugar, and gives it a bright lustrous sheen. The sugar can then be sculpted by hand into various shapes, made into ribbons, or blown.

13. 3) Blown sugar

- 14. In blown sugar, a portion of pulled sugar is placed on a rubber pump which is tipped with either wood or metal. Pumps are most commonly hand pumps. While being blown, the

sugar can be shaped, often into animals or flowers. Blown sugar cannot be quickly cooled by dipping it in water, so chefs must use fans to cool the sugar, all the while rotating it, so that it does not come out of shape. This technique is very useful in making balloons for wedding cakes.

15. 4) Cast sugar

16. In this technique, sugar is poured into molds. This technique produces more sturdy pieces than pulled and blown sugar, and is almost always used for the base and structural elements of showpieces. Cast sugar can also be used in many recipes such as a simplicity called cake.

17. 5) Pastillage

18. A thick sugar paste, similar to gum paste, is molded into shapes. When dried, it is hard and brittle. Made with gelatin, water and confectioner's sugar, it hardens quickly and can be shaped for a short while by hand, and after hardening, with electric grinders, cutters, sandpaper and assorted files.

19. 6) Pressed sugar

20. Granulated sugar is mixed with a minimal amount of water, and is put under pressure. It hardens into a solid piece. Though this is used for showpiece bases, it is less often used because of the time required to produce it, and its lesser aesthetic value.

21. 7) Rock sugar

22. The liquid sugar is blended with a small amount of royal icing. The heat from the sugar causes the air incorporated in the icing to rapidly expand, causing the mixture to grow to several times its original volume. The mixture is quickly poured into a lined dish, and placed into a blast chiller to set. This process produces a sugar mass with the texture of volcanic pumice, the color of which is determined by the color of the sugar syrup.

23. 8) Spun sugar

24. Sugar syrup is made into long extremely thin strands which can be shaped to make things like birds nests. The sugar is gathered on a fork or a special tool designed for spinning sugar and is flicked in long strokes over succeeding pipes.

25. Sugar sculpture examples

26. Sugar sculptures are becoming more popular as alternatives to a wedding cake. However they are often much more expensive, as they are made-to-order and very time consuming to create.

27.

28.

29. Tools and equipments used in sugarcraft

30.

31. Plunger cutters

32. Brush

33. Nozzles

34. CAKE DECORATING SMOOTHER PADDLE/ ICING FONDANT POLISHER FINISHER

35. crimpers

36.

37.

38.



39. Sugarcraft Ball Tool

40.

41.



42.

43. Sugarcraft Tool Set

44.



45.

46. Sugarcraft Moulds Tools

47.

49.

51. *Items in search results*



**Large Non Stick Rolling Pin Fondant
Sugarcraft Cake Decorating Craft**



Sugarcraft Cake Decorating Fondant Icing Plunger Cutters Tools



**Icing Piping Nozzles Pastry Tips Cake Sugarcraft
Decorating Tool Box Set**



**Sugarcraft Cake Decorating Fondant Icing
Plunger Cutters Tools Cookie cutters**



**FINE FLAT POINTED ARTIST CAKE BRUSH PAINT
PAINTING DUSTING SUGARCRAFT TOOL**



**CAKE DECORATING SMOOTHER PADDLE ICING
FONDANT POLISHER FINISHER SUGARCRAFT CUP**



**PIECE MODELLING CAKE TOOLS DECORATING
BAKING ICING CUP CAKE KIT SUGARCRAFT**

Perfect for use with sugar paste, marzipan and icing.



**Sugarcraft Clay Gun 19 Discs Tool Sculpting Sculpey
Fimo Extruder Marzipan Icing**



**Circle&Square Fondant Sugarcraft Cutter
Plunger Cookies Decorating Tool**



**NEW Icing Pastry Cutter Embosser Tool 3 Wheels Cake
Decorating Sugarcraft Tools**

Fondant cake sugar craft wheel cutter embosser tool set. Package Included: 1 pcs cake wheel cutter. You'll create great-looking dots or waves to give your fondant cake terrific texture.



Fondant Cake Grass, Hair & Fur Icing Nozzle

Great for character cakes and cupcakes, because it pipes multiple pull-out lines used for hair and fur...



Silicone Mold Mould Sugar Craft Lace Cake Decoration Baking Tool Love Heart



Lace Shaped Silicone Mold Fondant Cake Decoration Baking Tool.



Fondant Cake Cutter Mold Mould Button Flower Silicone Sugarcraft Gum Decorating Tools



Fondant Cake Cutter Mold Mould Button Silicone Sugarcraft Gum Decorating Tool. A fantastic way to add color and dimension to the special cake. This mold is multi-functional as it has different ways on cakes.



Embossed Rolling Pin Gum Paste Embossing Sugarcraft Decorating Cake Mould DIY

Ideal tool for using with fondant cakes, sugar paste, petal paste, marzipan. Different embossing shapes make your cakes more special and attractive.

Gum paste modelling

- 280g icing sugar
- 3 teaspoon gum trag
- 1 teaspoon liquid glucose
- 6 teaspoon water

315 g ready fondant/sugarpaste (refer to my earlier post for the recipe)

Method

Sift icing sugar and gum trag. Add glucose & water. Mix. Knead until you get a dough consistency. Lastly mix together with the ready fondant. If the final dough is too dry, you may add some shortening.

You can use cornflour to dust your surface top.

Wedding cake

A **wedding cake** is the traditional cake served at wedding receptions following dinner. In some parts of England, the wedding cake is served at a wedding breakfast, on the morning following the ceremony. In modern Western culture, the cake is usually on display and served to guests at the reception. Traditionally, wedding cakes were made to bring good luck to all guests and the couple. Modernly however, they are more of a centerpiece to the wedding and are not always even served to the guests. Some cakes are built with only a single edible tier for the bride and groom to share.

Wedding cakes can certainly range in size, from a small cake that feeds ten people, to a very large cake that will feed hundreds, all depending on the wedding. Modern pastry chefs and cake designers use various ingredients and tools to create a cake that will reflect the personalities of the couple. Marzipan, fondant, gum paste, buttercream, and chocolate are among some of the more popular ingredients used. Along with ranging in size and components, cakes range in price. Cakes are usually priced on a per-person, or per-slice, basis. Prices usually range from a few dollars to a few hundred dollars per-person or slice, depending on the pastry chef hired to make the cake. Wedding cakes and cake decorating in general have become a certain pop culture symbol in western society; many TV shows like Cake Boss or Amazing Wedding Cakes have become very common and are trending in today's popular culture.

Gumpaste Sugarflower Cake Decorations



Roses



Anamone



Azalea



Blossoms



Berries



Borgan sprays



Cornation



Dafodil



Dahlia



Daisy



Dogwood



Gardania



Hibiscus



Hydrangea



Iris



Jasmine



Leaves



Lily



Lotus



Lily



Orchid



Pansy



Peony



Petunia

Traditional wedding cakes

Traditional British-style wedding cakes are perhaps the quintessential wedding cakes, from which most other wedding cake styles are derived. These are, in general, unfilled dark fruitcakes. The richness of the cake reflects a time when refrigeration was unavailable. Dried fruit, sugar, suet, and thick layers of coatings and icings helped the cakes stay fresh for one year, as the top layer would be saved and eaten on the couple's first anniversary. The cakes are traditionally coated with a layer of jam, then with marzipan, and finally with several coats of royal icing. The jam and marzipan keep the white icing from absorbing oils or moisture from the cake, while protecting the cake itself from moisture loss and staling.

Traditional British-style cakes consist of three tiers supported by pillars, generally pastillage, and both the icing and the decoration, which consists of royal icing piping and pastillage, are pure white. To some traditionalists, the British cake remains the only true wedding cake. Because the cake does not require refrigeration, which would damage sugar decor work, very detailed decorations, often baroque or gothic in style, can be applied. However, the labor-intensive nature of this style of cake is a drawback for most pastry chefs and bakers today—nor are these cakes to everyone's taste. In addition, the royal icing used for decor is very hard and brittle, making it difficult to cut such a cake cleanly or easily.

The British cultural influence is reflected in the styles of wedding cakes that evolved in countries colonized by Britain. The Australian and South African styles are shining examples of this influence. Decoration consists of minute royal icing piping and gum paste flowers. Colors, if used at all, are the softest of pastels. Although these cakes may be quite ornate, their overall appearance is very soft and delicate. The tiers may simply be stacked, may be supported on pillars, or, often, may be displayed on offset asymmetrical cake stands.

In the Australian-style wedding cake, as with the British, it is not uncommon for tiers to be octagons, squares, or horseshoe shapes. The primary appeal of Australian cakes is their ornate yet delicate appearance. Beautiful realistic flowers are created from gum paste, and royal icing embroidery, string work, flood work, and ornaments are used to create stunning and intricate effects. The very detailed style of decoration, however, can be a disadvantage to the pastry chef or baker, in that it is labor-intensive and therefore expensive to produce.

The South African-style cake is very similar, but it can be distinguished from the Australian style by the large yet delicate wings made of royal icing filigree and flood work that extend over the cake.

The British cake also spawned American-style cakes. American wedding cakes are most clearly defined by the use of buttercream icing, buttercream piping decor, and buttercream roses, often colored. There is no single cake type of choice in American cakes, but pound cakes, high-ratio cakes, genoise, and carrot cakes are most common. Regardless of the style of cake, good judgment and craftsmanship are required for the production of a cake that is cost-effective and attractive. Highly decorated cakes such as these should always be made with high-quality ingredients so that the finished cake can be both a delicious dessert and an impressive showpiece.

The modern wedding cake

Clean, straight lines and simple decorations in the form of cutouts of chocolate, pastillage, marzipan, or nougatine define contemporary wedding cakes. Fresh flowers or fresh fruits are frequently used. The cake itself may be almost any variety, from cheesecake to mousse cake to sponge with fruit, or even a charlotte. Almost any type of icing may be used, with whipped cream and good-quality buttercream most common. Offset cake stands are the rule for modern cakes, since they are too light and fragile to be stacked.

The advantages of modern-style cakes are efficiency in production, and visual and taste appeal. Simple elegance and a light, fresh appearance are the objectives, in contrast to the baroque ornamentation of more traditional styles. Cutouts can be made in advance, then placed on the cake relatively quickly for decoration. Fresh fruit and flowers are beautiful in their own right and require little assistance from the patissier.

The taste of the finished product is an important factor in favor of the modern-style wedding cake, with virtually no restrictions on the type of cake or fillings. Generally, as with modern cuisine, fresh and seasonal products are employed to their best advantage. If a customer loves fresh strawberry charlotte, there is no reason the patissier cannot create a festive, attractive wedding cake composed of charlottes. Many people seek out the unusual, and a modern-style wedding cake can be tailored to their liking.

Specialty cakes

Specialty cakes employ many of the same techniques as do wedding cakes. There are two elements that distinguish wedding cakes from specialty cakes: Specialty cakes are typically not tiered or stacked as are wedding cakes, and they are most often less ornately decorated. In some respects, however, the creation of a specialty cake presents fewer restrictions for the pastry chef or baker's creativity. Specialty cakes are less limited by shape, color, and type of decor. Types of decor for these cakes will be restricted only by ambient temperature and humidity.

Building a properly supported cake

Adequate support for a tiered cake is, of course, an important consideration in the construction of the cake. If the tiers are to be stacked without pillars, they will generally require added support (possible exceptions are British- and Australian-style cakes, which are often solid enough not to require additional support). This added support can be supplied by wooden dowels or pipes cut to length and inserted into each tier prior to placing the next tier on top. Thus, the weight of the tiers above is supported by the

dowels rather than by the cake below. If pillars or columns are used, each type has its own system for providing strength and support to the layers above.

Scheduling the production of a wedding or specialty cake

The timetable for cake production varies widely depending on the style of cake being produced. A sample schedule is given below.

prior to day 1: Design and produce decorations; prepare hardware.

day 1: Bake cake layers.

day 2: Fill cake layers and seal-coat the cake.

day 3: Ice and decorate cake.

day 4: Transport cake and set it up.

This schedule is designed for lighter, freshly made cakes. Rich, dense British-or Australian-style cakes are often allowed to mature and ripen for weeks, meaning that the cake can be baked well ahead of time. For any cake, most of the time-consuming decorations can be made well in advance as long as there are adequate dry storage facilities. Creating the decor for the cake generally must begin several days prior to assembling and serving both because of the time involved in the decoration and the time required for royal icing string work to dry. Do not refrigerate this type of cake; the sugar decorations will melt.

5 Chocolate

- 6.1 History
- 6.2 Manufacturing process of chocolate & cocoa powder.
- 6.3 Types
- 6.4 Tempering
- 6.5 Use and storage

8.1) HISTORY

- Columbus was the first to get cocoa beans to Europe in 1494.

- In 1519 Cortez who conquered Mexico noticed that the Aztecs made a preparation from roasted ground beans called “CHOCOLATL” from which the chocolate was derived. Cortez brought this recipe to Spain where it was kept a secret for over a century. The secret was learnt by the French and gradually spread to other countries.

- In 1657 a French man opened a CHOCOLATE HOUSE in Bishops gate – London. By the latter half of the 17th C there were several chocolate houses.

- Early natives of America brewed a bitter, unsweetened beverage from the cocoa beans.

- Since the production of beans was limited, they were in high demand and people use to trade them. They were also used as a means of currency and were important in religious ceremonies. Cocoa was also used as a medicine and as a cooking spice.

- A Dutchman Named Van Houten, developed the process of removing cocoa butter from raw cocoa in early 1800’s.

- In 1842, Cadbury brothers started selling Block Chocolate in England.

- In 1880’s, the Swiss Rudolphe Lindt, invented the **Conching** process of chocolate to make it a smoother product.

Another Swiss, Daniel Peter created milk chocolate by adding dried milk to the paste.

CHOCOLATE PRODUCING REGIONS OF THE WORLD



CHOCOLATE SOURCE: COCOA PLANT

The scientific name of cocoa is *THEOBROMA CACAO* means "food of the GODS". The fruit, called a cacao pod is ovoid in shape. It is 15–30 cm (or 6–12 in) long and 8–10 cm (3–4 in) wide, ripening yellow to orange, and weighs about 500 g (1 lb) when ripe.

The three main varieties of cacao beans used in chocolate are

1. Criollo
2. Forastero
3. Trinitario

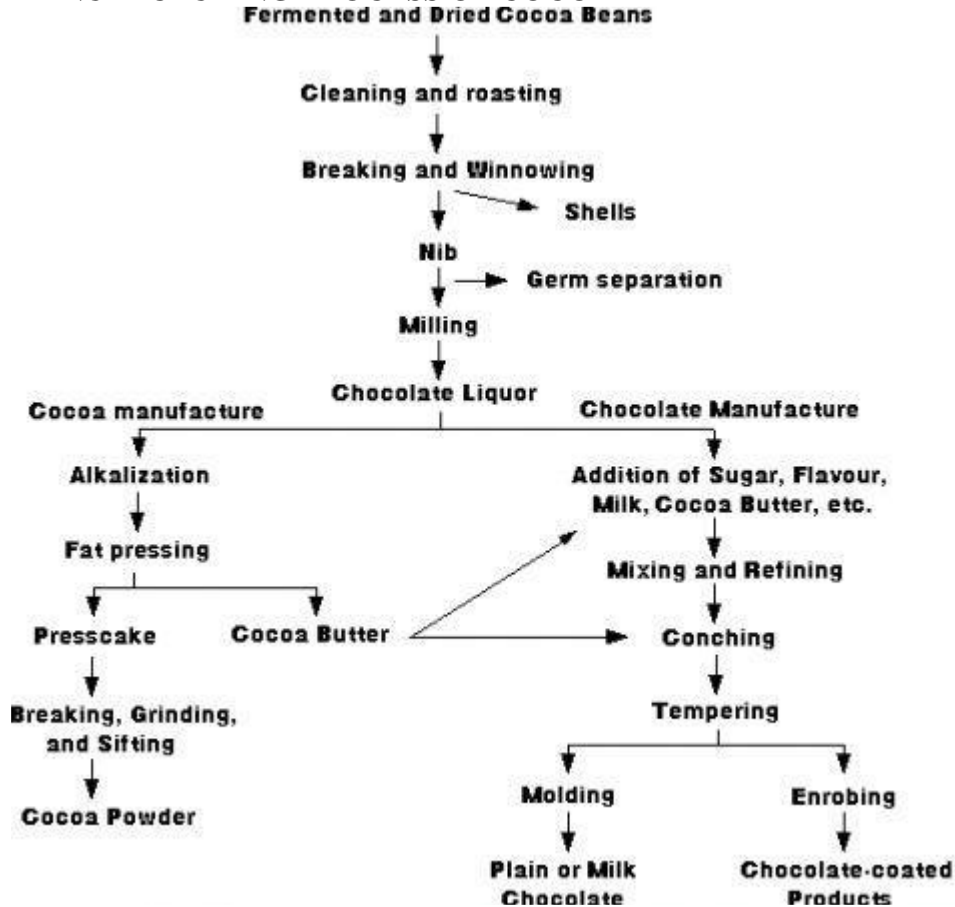
Each tree produces annually between 1 lb and 5 lbs of seed kernels, which we know as cocoa beans. Maximum yield is not usually achieved until the tree is about eight years old, but with proper care this yield can be maintained for 30 or 40 years.

IDEAL CLIMATIC CONDITIONS

1. Tropical climate with lots of sunshine and plenty of rainfall.
2. Should be grown on slopes with mother trees shading them.
3. Soil should be rich in nutrients such as salt and potash.
4. Temperatures should be around

The crop is harvested from October to March

MANUFACTURING PROCESS OF COCOA



1. The pods are harvested. The seeds beans and pulp is removed from rinds and placed in sweating boxes for around 12 days.

During this time the pulp ferments as a result of action of wild yeast on pulp sugar converting it into CO₂ and alcohol. Acetic acid bacteria oxidize alcohol to acetic acid and the liquid is drained off from the boxes.

2. Beans are frequently turned during fermentation preventing the formation of an aerobic organism (cannot live in the presence of oxygen)

3. After fermentation the beans are dried as soon as possible to reduce the moisture content to 5% by sun drying or by artificial heat.

The process takes around a week. The beans are then shipped to the factory.

4. Sorting and cleaning.

On reaching the factory the beans are cleaned and sorted.

Now the beans are ready for roasting which is one of the most important processes in the manufacturing of cocoa.

5. Roasting is done to ...

A. Develop flavor

B. Render the skin which makes it easy to remove.

This process demands skill to achieve perfect flavours.

Beans are roasted in revolving drums with the temperature of 200F – 248 F.

Lower temperatures are adopted for chocolate and higher for cocoa.

6. Husking is the next process where the dried skin is removed from the beans by air currents

7. The blended nibs are milled to achieve a reduced size.

This is done in machines which consist of 2 groove horizontally revolving stones.

During the grinding due to friction temperature rises to almost 100F causing the cocoa butter in the nibs to melt reducing the mass to a thick brown viscous liquid called crude chocolate.

If this crude chocolate is set in moulds it is called unsweetened chocolate which is used further for manufacturing of cocoa or chocolate.

Cocoa powder consists of finely ground nibs minus some of the cocoa butter. While chocolate consists of full cocoa butter plus extra cocoa butter, sugar and milk solids(optional)

MANUFACTURING PROCESS OF COCOA POWDER

There are 2 processes of manufacturing cocoa powder.

1. NATURAL PROCESS: - finely milled chocolate liquor is pumped into hydraulic presses where at a pressure of up to 6000lb per square inch, some of the cocoa butter is removed depending on the temperature and the pressure used.

When cooled the cakes are broken into smaller pieces and reduces to powder form by pulverizing or by reduction rollers. The powder is then sieved through silk cloths and packed.

2.DUTCH PROCESS

It is similar to the natural process except in the treatment process of beans usually during roasting (the nibs are treated with alkali solution). This results in the elimination of all traces of acetic acid giving rich colour, a less bitter flavor and a more stable suspension.

8.2) MANUFACTURING PROCESS OF CHOCOLATE

- Cocoa butter when cooled sets as a hard yellowish fat with a strong odor that is used in the manufacturing of chocolate to adjust the consistency.
- Chocolate is made up of cocoa solid, sugar, cocoa butter. In case of milk chocolate, milk solids are added.

1. **MIXING**:-Blended and processed nibs are mixed with cocoa butter, sugar and small quantities of flavouring materials in a melangeur (a machine fitted with a granite roller under which the chocolate is directed continuously and mixed into a thick heavy paste)

2. **REFINING**: - The chocolate is transferred from the melangeur to the refiner (a machine which consists of series of smooth rollers).

The rollers are water cooled.

During the process the particle size is reduced.

Because of the chilling the chocolate sets on the rollers which is scraped off resulting in a flaky powder.

3. CONCHING

After warming the chocolate it is passed from the refiner into the CONCH for further processing.

Here the molten chocolate is rolled and buffeted for upto 100 hours to ensure perfect smoothness and flavour.

A conch is a heated tank with a concave granite bottom over which a small roller runs backward and forward.

The tank helps to constantly direct the chocolate back

The process is slow but necessary to get out flavour

4. **MOLDING**: - The COUVETURE chocolate is put into storage tanks where viscosity is adjusted by adding cocoa butter.

Then it is set in molds and when ready, packed for distribution

8.3) TYPES OF CHOCOLATE

1) Bitter chocolate – also called unsweetened, this is the darkest, purest form of chocolate liquor in its solid state; found in packages of six eight 1 oz. (28 g) squares. Also referred to as block cocoa. In less expensive brands cocoa butter can be replaced by other fat.

2) Semisweet chocolate - solid form of chocolate that has had cocoa butter and sugar added but must contain at least 35% chocolate liquor. Sugar may vary from 35% - 50%

3) Sweetened chocolate - solid form of chocolate that has had even more sugar added than semisweet but must contain at least 15% chocolate liquor.

4) Milk chocolate - lighter-colored sweetened chocolate; cocoa solids have been replaced with milk solids (or cream); more sensitive to overheating; best used in decorating and makes sensitive to overheating and makes a nice color contrast on darker chocolate icing or glaze.

5) White chocolate - not a true chocolate because it does not contain any chocolate liquor; but it does contain cocoa butter so it is sometimes referred to as a compound chocolate; also called confectioner's chocolate; because of the milk solids in white chocolate, it is more sensitive to heat than dark chocolate.

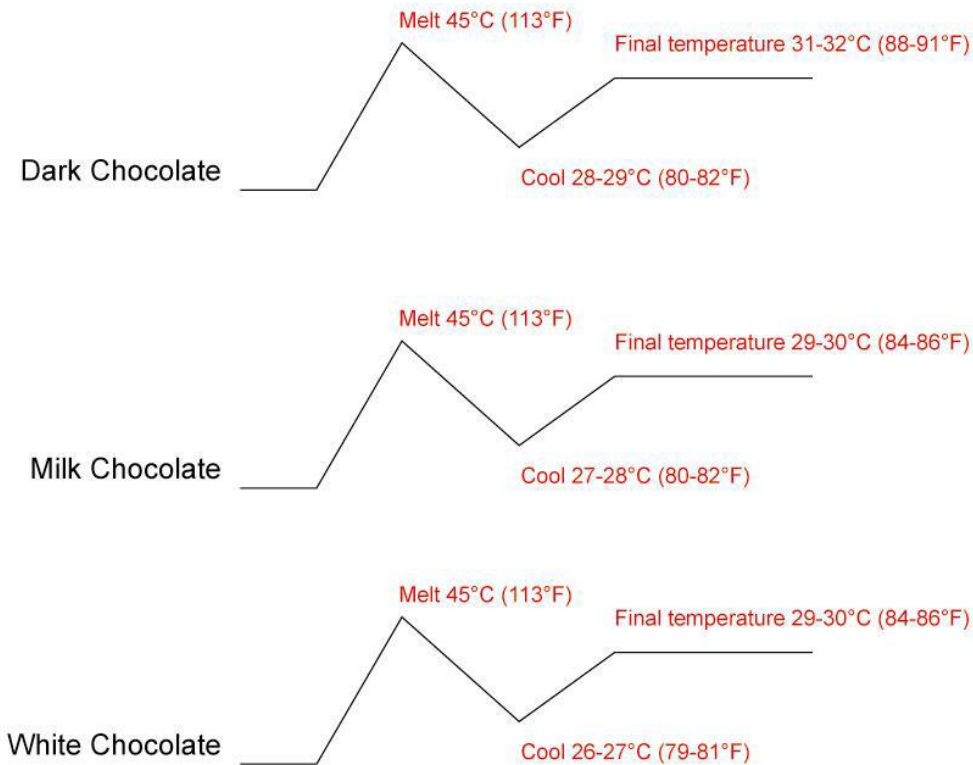
BAKER'S COMPOUND

- This can either be plain or milk.
- It is similar to couverture chocolate except that most of the cocoa butter is replaced by hydrogenated fat and a stabilizer (lecithin which prevents the added fat from separating).
- This prevents the chocolate from bloom and therefore needs no tempering.
- White chocolate - not technically a chocolate because it does not contain any chocolate liquor; but it does contain cocoa butter so it is sometimes referred to as a compound chocolate; also called confectioner's chocolate; because of the milk solids in white chocolate, it is more sensitive to heat than dark chocolate.

8.4) TEMPERING OF CHOCOLATE

- Tempering of chocolate is a process used to prepare pure chocolate liquor for molding the chocolate. In all handmade chocolates, the chocolate slab is broken into small pieces and placed in a bowl over hot, but not boiling water. Stir occasionally until it is melted and the temperature is 20°C to 40°C. If this temperature is exceeded the chocolate is ruined. Remove the bowl from heat, after 1/3 of chocolate is melted. Bring this chocolate liquor to your body temperature. It is only necessary to temper chocolate when using it for molding (or) dipping.

How To Temper Chocolate :



CHOCOLATE FAULTS

- Bloom – grey film that forms on the outside of solid chocolate; occurs when stored at temperatures higher than 75°F (25°C); the cocoa butter begins to melt and rise to the surface; doesn't affect the flavor but has an unappetizing appearance;

TYPES OF BLOOM

- 1) Sugar bloom
- 2) Fat bloom

SUGAR BLOOM

- **Sugar Bloom** If chocolate is not tightly wrapped, moisture from the atmosphere condenses on the surface when the temperature drops. This moisture dissolves some sugar from the chocolate. When the air warms again, the moisture evaporates leaving behind a gray film of very fine sugar called "sugar bloom."

- **Fat Bloom** If chocolate is held for six months or more at a temperature in the high 70s Fahrenheit, mid 20s Celsius, tiny amounts of some fats in the cocoa butter melt and float to the surface of the chocolate forming a gray film, "fat bloom." In appearance, fat bloom and sugar bloom look alike, but there is a slightly oily feel to the fat bloom.

- **USES OF CHOCOLATE**

- Cocoa powder and Chocolate powder are used:
 1. As a hot beverage.
 2. As a flavouring agent.
 3. As a colouring agent.
 4. For hot and cold sauces.
- Couverture is used:
 1. As a coating.
 2. As a decoration (*Piping*).
 3. For moulding into Easter eggs etc.
 4. For sauces.
 5. For ice-creams.

USES OF COCOA

1. Used in the chocolate making process.
2. As flavoring for confectionery and bakery products
3. Pharmaceutical purpose
4. Cosmetic products

USES OF COCOA BUTTER

1. Used to make chocolate.
2. Used as a medium for cocoa paintings on confectionery products
3. Pharmaceutical purpose
4. Cosmetic products

7- Icings and Toppings

7.1 Classification with advantages & disadvantages

7.2 Shelf life

7.3 Types

Icing is a sweet coating for cake and other baked products. They are also called Frosting.

The main functions of icings are;

1. They contribute flavor and richness
2. They improve appearance
3. They add variety
4. They improve shelf life by forming protective coatings around cakes.

There are 6 basic types of icings

1. Fondant
2. Butter creams
 - a. Simple butter cream
 - b. Decorators butter cream
 - c. Meringue type
 - d. French butter cream
3. Foam type icings
 - a. Marshmallow Icing
4. Fudge type icings
5. Flat type icings
6. Royal or decoration icings
7. Glazes

1. Fondant: Fondant icing gives a cake or pastry an elegant appearance and is popular for wedding cakes and other show pieces. Fondant icing is simply sugar and water, with either glucose or cream of tartar used to produce the proper crystallization to give it a smooth, almost porcelain look.

2. Butter Cream Icing: butter cream icing are mixtures of fat and sugar. They may also contain egg to increase the smoothness and lightness. These are usually flavored and colored to suit a variety of purposes.

There are variations of butter cream recipes

- a. Simple Butter Cream: Cream together fat and confectioners' sugar to desired consistency and lightness.
 - b. Decorators Butter Cream: in this mixture air is beaten into the fat and butter mixture to make to lighter.
 - c. Meringue type butter cream: this is a mixture butter and meringue.
 - d. French butter cream: are prepared by whipping sugar syrup and egg yolk together to a light foam and then soft butter is whipped in.
- 3. Foam Type Icing**: these are boiled meringues i.e. meringues made with boiling sugar syrup. Foam icings should be applied thickly to cakes and left in peaks and swirls. Marshmallow icing is a type of foam icing
- a. Marshmallow icing: to the boiled meringue, soaked and dissolved gelatin is added.
- 4. Fudge type icing**: Fudge icing is thick and rich with a strong chocolate flavor. Other flavors, such as almond, peanut butter or mint, are often added. Using both butter and shortening, corn syrup, sugar and a variety of other ingredients, fudge icing can be somewhat time consuming to prepare, but the finished product is stable and can be refrigerated and used at a later time.
- 5. Flat Icing**: **Flat icing** is one of the most simple icings. The basic ingredients of flat icing are powdered sugar and water. Simple flat icings form the glaze on rolls, danishes and other pastries and can be flavored with fruit or spices to add a new taste to the pastry.
- 6. Royal Icing**: Royal icing is similar to flat icing, but adds egg whites to produce a thicker icing which hardens to a brittle texture. Royal icing can be used to make beautiful, artistic decorations because it hardens when dried, but the same property makes it less enjoyable to eat. Royal icing is used primarily for decorative additions to cakes and for show work such as sugar sculptures.
- 7. Glazes**: Glazes are thin, watery icings which form a hard, crisp shell when poured or brushed over cakes and pastries. Glazes are usually made with a fruit flavor, although other flavors, such as chocolate or coffee, are sometimes popular as well. Like flat icing, glazes can be used on sweet breakfast pastries like coffee cakes. They add flavor, and also help keep the pastry moist and improve its shelf life.

Differentiate between Icing and Topping

SN	Icings	SN	Toppings
1.	Termed as icing because it is applied to various cakes and bakery products	1.	Although some of these are termed under icing, it sounds very contradictory but the fact remains that they are placed or topped on the cake
2.	Appearances is always in consistency whether soft, firm, running or coating.	2.	Appearance is most of the time in texture form/dough form Eg. Hard, soft, firm or smooth
3.	Types of icing Butter icing, Flat Icing, Glaze Icing	3.	Types Of Toppings Fondant, Marzipan, Marshmallow, Royal Icing

8- Colours & Flavours

8.1 Types – (Normal & Artificial)

8.2 Rules given by FDA

Flavorings

Flavours need not be just Extracts or Essences - Nuts, Fruits and Alcohol impart their flavour and give added textural dimensions too. Even fats can add flavour as an important part - Butter and Olive Oil for example.

Flavourings can broadly be divided into

- Natural flavourings. In natural essences, often an essential oil has been extracted from the plant or fruit.
- Artificial (or synthetic) flavourings - synthetic essence is made the flavour is achieved by combining various existing chemicals to create a blend of flavours identical in smell and taste to the natural ingredient.

Flower Essences

Baking with flower essences can add a subtle, perfumed flavour to cake sponges, cookies and frostings. Violet, lavender and rose essences are some of the most popular flower essence flavours.

Fruit Essences

Using a fruit essence rather than fruit itself can give a more intense flavour. It also means fruit doesn't have to be added to the sponge which can alter both the texture and colour. Strawberry, raspberry, and blueberry are all delicious berry essences, while orange and lemon bring a sharper citrus flavour. Banana essence gives a powerful synthetic banana flavour, so add little by little so as not to overdo it.

Fruit Oils and Fruit Essences, are not the same! Fruit oils are cold pressed from the skins and dispersed in oil. They are very strong with only a few drops required. Essences are flavoured oils. You would use 1/8 to 1/4 of a teaspoon of fruit oil in a recipe which calls for 1 – 2 teaspoons of fruit essence

Candy Essences

Capturing the sugar rush of the candy shop is easy with flavoured candy essences like bubblegum, butterscotch, marshmallow and candy floss to pick and mix in sponges and frostings.

Nut Essences

For a delicious nutty flavour, a splash or two of nut essence can transform your cakes and cookies. Almond and hazelnut work especially well when paired with other ingredients in your cake such as fruit and chocolate. If you have a nut allergy, avoid nut essences as you would any nut ingredients.

Vanilla Essence, Extract and Vanilla Bean Paste

As flavours go, it doesn't get simpler than vanilla. A good quality extract or essence will give added vanilla notes to your sponges and frosting, ideal for baking up a batch of classic vanilla cupcakes in a rainbow of frosting colours.

Artificial vanilla flavouring can taste quite synthetic, so we don't recommend using this unless you're specifically seeking a more artificial-tasting vanilla flavour.

Vanilla bean paste is a much thicker mixture of vanilla beans, sugar and water and can be used sparingly as an alternative to vanilla extract.

Other essences commonly used in baking include coffee, rum, brandy and coconut.

Syrups

Syrups are much less concentrated than essences so are often needed in larger quantities when used in baking.

These may be natural plant syrups such as maple syrup or a concentrated, flavoured syrup. Drinks manufacturers like SodaStream sell concentrated soft drink syrups in flavours like cola and lemonade – these can also be added to cake mixtures and frostings to create fun flavours.

A word of warning – make sure the flavourings, essences, extracts and syrups are all completely edible and are suitable for baking with before using.

Rose water is the extract of rose petals in water. True rose water is distilled from the essence of Rose Petals. It is much stronger than the home made variety.

To make this at home take 2 cups rose petals with the bitter white part cut off. Pour 2 cups boiling water over and allow to infuse for 45 minutes. Put through a coffee strainer and keep in a lidded glass jar in the fridge. Use as required.

Natural Food Essences are distilled from fruits, nuts, spices and other plants. Due to this process they are very strong, only a few drops are necessary to enhance the flavour of baked goods. Natural Food Essences are expensive.

Extracts are the concentrated flavours of fruits, nuts, spices and other plants, in a solution of alcohol. Extracts are not as strong as essences, more is required to enhance the flavour of baked goods. Less expensive than essences but more is required to give the same flavour – teaspoon rather than drops! Almond extract is a solution of oil, bitter almonds, and alcohol (approximately 1%).

Alcohol and Liqueurs are used to enhance the flavours of chocolate, coffee and fruits in Baking. Alcohol imparts its flavour, eg Brandy. Liqueurs give the flavour of the ingredient it was made from, eg Grand Marnier - Oranges

An Eau de Vie is a Liqueur which has been distilled, eg Cointreau – Orange. Eau de Vies are a clear liquid while liqueurs are coloured.

Baking with alcohol will always leave a residual of alcohol behind. It is not all ‘cooked off’. Baking for 1 hour, 25% of alcohol will be left, while baking for 2 ½ hours, 5% of alcohol will be left, in the finished product.

Citrus Fruits, Peel and Zest. Citrus fruits include lemon, lime, orange, tangerine, key lime, clementine, grapefruit, kumquat, etc.

When used fresh give the best flavours in baked goods. Only use the outer skin, not the bitter white ‘pith’.

Peel must always be cooked first in water until soft before using or it will always be chewy. This is especially so when using it as a garnish, or before crystallising peel.

Zest is best when grated on the finest holes of your grater. It does not have to be cooked first because it is so fine. Using it that way you keep all of the flavour from the natural oils in your baking.....the flavour finely grated zest gives to cakes is fantastic!

When using high butterfat couverture to make Chocolate Ganache, add a little lemon juice. It cuts through the richness and balances out the sweetness. Trust me, it makes a formidable difference to rich chocolate cakes.

Coffee. Brewed real coffee can be used as a flavour but the water content causes an issue with balancing ingredients in the recipe. It is better to use powdered instant coffee. The best coffee flavour is gained by using ‘Instant Espresso Powder’ which is more concentrated. Coffee enhances the flavour of chocolate. Only use a little to develop chocolate’s richness, unless you want a full chocolate/coffee flavour.

Fruit and herb vinegars are wine vinegars which have been infused with other ingredients, such as raspberries or tarragon. These are especially handy in baking when fresh fruit and herbs are not available.

SPICES are seasonings added to food to improve its flavour. The following are the most frequently used in everyday baking.

Flours, salt, raising agents, fats, spices etc are all used as flavouring agents.

Food colours

We provide an array of food colors that are artificially made using various chemicals. Our range of food colors includes synthetic food colors and natural food colors. Synthetic Food Colors are

in more use than the Natural Colors, because of availability of wide hue range and competitive prices. Extensively used in food industry, these colors make the food items more delightful. These colors are prepared under the hygienic conditions and inspected by chemist to ensure that foods are safe to eat and accurately labeled.

Purpose of Food Coloring

- Enhancing naturally occurring colors.
- Protecting flavors and vitamins from damage by light.
- Decorative or artistic purposes such as cake icing.
- Masking natural variations in color.
- Offsetting color loss due to light, air, extremes of temperature, moisture, and storage conditions.
- Providing identity to foods.
- Providing varieties of wholesome and Nutritious food that meets consumer's demand.
- Improves taste
- Added to food or drink to change its color
- Improves and maintains nutritional value of food

Bakery

Catering to the needs of bakery manufacture or small bakery and bakers, we provide a color for use in bakery such as Biscuits, Cookies ,Cakes Pastries, Cake mixes etc . These colors are formulated using the best grade raw materials. These colors possess high quality standard and purity levels. Further, these are offered in various packaging options as per the demands of our clients.

Beverages

Catering to the needs of beverage industry, we provide beverage colors that are used in the manufacturing of cold drinks, Juice, Dry Mixes etc. Cold drinks look & taste are changing due to adding these colors. Formulated using the highest quality organic substances, these colors are highly effective and safe to use. These colors are provided by us in proper packing in order to retain their purity and composition for long period of time.

Confectionery

We provide a range of colors to the large manufacturer of confectionary items such as Jellies, Chewing Gum, Cream / Paste , Gums & Chews etc. We assure you that these colors are harmless and accurately fresh. These colors are carefully regulated by our experts. Moreover, these are offered in highly appropriate packing options and competitive in prices.

Dairy & Ice cream

We offer a wide range of Dairy & Ice cream color that is highly appreciated by our customers. These colors are used in Dairy and Ice cream manufacturer. These colors are being widely used

in Milkshakes, Processed Cheese and Water Ices etc. These colors make the food items more delightful. These colors are prepared under the hygienic conditions, keeping into mind PH factor.

Meat and savouries

We offer colors of meat & savouries to food industry. These colors are highly used in Fresh comminuted Meat, Seasonings etc. These colors make food colors appetites more. It is very important for food colors to be heat resistance These colors make the foods items more delightful. These colors are food additives and hygienic in use.

Sea food

We offer a color for use of sea food application. These colors are used in Fish coating, Smoked fish. These colors are most commonly used in food agents. These colors are harmless and accurately fresh. Besides, these colors are subject to several rounds of examinations conducted by the experts.

Bakery Colours

Synthetic Food Colours

These can be supplied in powder, granular and liquid forms.

Natural Food Colours

Food colours that are commonly described as natural or nature-identical.

Blended Powder Colours

Powder dispersions in appropriate media are also available.

Liquid Based Colours

Colour / Flavour Compounds

2 types of Colour/Flavouring Compound suitable for use in Bakery, Patisserie and Confectionery application. They are our Standard Compound and our Glace Compound. The 'Standard' compounds can be used in Cake mixes etc. The Glace Compounds are ideal for adding to Icing mixes.

There are thousands of ingredients used to make foods. The Food and Drug Administration (FDA) maintains a list of over 3000 ingredients in its data base "Everything Added to Food in the United States", many of which we use at home every day (e.g., sugar, baking soda, salt, vanilla, yeast, spices and colors).

All food additives are carefully regulated by federal authorities and various international organizations to ensure that foods are safe to eat and are accurately labeled.

The purpose of this brochure is to provide helpful background information about food and color additives: what they are, why they are used in foods and how they are regulated for safe use.

Following are some reasons why ingredients are added to foods:

1. **To Maintain or Improve Safety and Freshness:** Preservatives slow product spoilage caused by mold, air, bacteria, fungi or yeast. In addition to maintaining the quality of the food, they help control contamination that can cause foodborne illness, including life-threatening botulism. One group of preservatives -- antioxidants -- prevents fats and oils and the foods containing them from becoming rancid or developing an off-flavor. They also prevent cut fresh fruits such as apples from turning brown when exposed to air.
2. **To Improve or Maintain Nutritional Value:** Vitamins and minerals (and fiber) are added to many foods to make up for those lacking in a person's diet or lost in processing, or to enhance the nutritional quality of a food. Such fortification and enrichment has helped reduce malnutrition in the U.S. and worldwide. All products containing added nutrients must be appropriately labeled.
3. **Improve Taste, Texture and Appearance:** Spices, natural and artificial flavors, and sweeteners are added to enhance the taste of food. Food colors maintain or improve appearance. Emulsifiers, stabilizers and thickeners give foods the texture and consistency consumers expect. Leavening agents allow baked goods to rise during baking. Some additives help control the acidity and alkalinity of foods, while other ingredients help maintain the taste and appeal of foods with reduced fat content.

What is a food additive?

In its broadest sense, a food additive is any substance added to food. Legally, the term refers to "any substance the intended use of which results or may reasonably be expected to result -- directly or indirectly -- in its becoming a component or otherwise affecting the characteristics of any food." This definition includes any substance used in the production, processing, treatment, packaging, transportation or storage of food. The purpose of the legal definition, however, is to impose a premarket approval requirement. Therefore, this definition excludes ingredients whose use is generally recognized as safe (where government approval is not needed), those ingredients approved for use by FDA or the U.S. Department of Agriculture prior to the food additives provisions of law, and color additives and pesticides where other legal premarket approval requirements apply.

Direct food additives are those that are added to a food for a specific purpose in that food. For example, xanthan gum -- used in salad dressings, chocolate milk, bakery fillings, puddings and other foods to add texture -- is a direct additive. Most direct additives are identified on the ingredient label of foods.

Indirect food additives are those that become part of the food in trace amounts due to its packaging, storage or other handling. For instance, minute amounts of packaging substances may find their way into foods during storage. Food packaging manufacturers must prove to the U.S. Food and Drug Administration (FDA) that all materials coming in contact with food are safe before they are permitted for use in such a manner.

What is a colour additive?

A color additive is any dye, pigment or substance which when added or applied to a food, drug or cosmetic, or to the human body, is capable (alone or through reactions with other substances) of imparting color. FDA is responsible for regulating all color additives to ensure that foods containing color additives are safe to eat, contain only approved ingredients and are accurately labeled.

Color additives are used in foods for many reasons: 1) to offset color loss due to exposure to light, air, temperature extremes, moisture and storage conditions; 2) to correct natural variations in color; 3) to enhance colors that occur naturally; and 4) to provide color to colorless and "fun" foods. Without color additives, colas wouldn't be brown, margarine wouldn't be yellow and mint ice cream wouldn't be green. Color additives are now recognized as an important part of practically all processed foods we eat.

FDA's permitted colors are classified as subject to certification or **exempt from certification**, both of which are subject to rigorous safety standards prior to their approval and listing for use in foods.

- **Certified colors** are synthetically produced (or human made) and used widely because they impart an intense, uniform color, are less expensive, and blend more easily to create a variety of hues. There are nine certified color additives approved for use in the United States (e.g., FD&C Yellow No. 6. See chart for [complete list](#)). Certified food colors generally do not add undesirable flavors to foods.
- Colors that are **exempt from certification** include pigments derived from natural sources such as vegetables, minerals or animals. Nature derived color additives are typically more expensive than certified colors and may add unintended flavors to foods. Examples of exempt colors include annatto extract (yellow), dehydrated beets (bluish-red to brown), caramel (yellow to tan), beta-carotene (yellow to orange) and grape skin extract (red, green).

What are dyes and lakes in color additives?

A **Certified color** additives are categorized as either dyes or lakes. **Dyes** dissolve in water and are manufactured as powders, granules, liquids or other special-purpose forms. They can be used in beverages, dry mixes, baked goods, confections, dairy products, pet foods and a variety of other products.

Lakes are the water insoluble form of the dye. Lakes are more stable than dyes and are ideal for coloring products containing fats and oils or items lacking sufficient moisture to dissolve dyes. Typical uses include coated tablets, cake and donut mixes, hard candies and chewing gums.

List of food additive types

Types of Food Ingredients

The following summary lists the types of common food ingredients, why they are used, and some examples of the names that can be found on product labels. Some additives are used for more than one purpose.

Types of Ingredients	What They Do	Examples of Uses	Names Found on Product Labels
Preservatives	Prevent food spoilage from bacteria, molds, fungi, or yeast (antimicrobials); slow or prevent changes in color, flavor, or texture and delay rancidity (antioxidants); maintain freshness	Fruit sauces and jellies, beverages, baked goods, cured meats, oils and margarines, cereals, dressings, snack foods, fruits and vegetables	Ascorbic acid, citric acid, sodium benzoate, calcium propionate, sodium erythorbate, sodium nitrite, calcium sorbate, potassium sorbate, BHA, BHT, EDTA, tocopherols (Vitamin E)
Sweeteners	Add sweetness with or without the extra calories	Beverages, baked goods, confections, table-top sugar, substitutes, many processed foods	Sucrose (sugar), glucose, fructose, sorbitol, mannitol, corn syrup, high fructose corn syrup, saccharin, aspartame, sucralose, acesulfame potassium (acesulfame-K), neotame
Color Additives	Offset color loss due to exposure to light, air, temperature extremes, moisture and storage conditions; correct natural variations in color; enhance colors that occur naturally; provide color to colorless and "fun" foods	Many processed foods, (candies, snack foods margarine, cheese, soft drinks, jams/jellies, gelatins, pudding and pie fillings)	FD&C Blue Nos. 1 and 2, FD&C Green No. 3, FD&C Red Nos. 3 and 40, FD&C Yellow Nos. 5 and 6, Orange B, Citrus Red No. 2, annatto extract, beta-carotene, grape skin extract, cochineal extract or carmine, paprika oleoresin, caramel color, fruit and vegetable juices, saffron (Note: Exempt color additives are not required to be declared by name on labels but may be declared simply as colorings or color added)
Flavors and Spices	Add specific flavors (natural and synthetic)	Pudding and pie fillings, gelatin dessert mixes, cake mixes, salad dressings, candies, soft drinks, ice cream, BBQ sauce	Natural flavoring, artificial flavor, and spices
Flavor Enhancers	Enhance flavors already present in foods (without providing their own separate flavor)	Many processed foods	Monosodium glutamate (MSG), hydrolyzed soy protein, autolyzed yeast extract, disodium guanylate or inosinate

9- International Desserts

9.1 Names & Country of Origin

9.2 Glossary terms (bakery & confectionery)

DESSERTS

Dessert is a typically sweet course that concludes a meal. The course usually consists of sweet foods, but may include other items. This definition includes a range of courses anywhere from fruits or dried nuts to multi-ingredient cakes and pies. With the many different varieties of desserts the many cultures have different variations. In modern times the variations of desserts have usually been passed down or come from geographical regions. This is one cause for the variation of desserts. These are some major categories in which desserts can be placed

- **Cakes-** Cakes are sweet tender breads made with sugar and delicate flour. Cakes can vary from light, airy sponge cakes to dense cakes with less flour. In addition, small-sized cakes have become popular in the form of cupcakes and petits fours.
- **Chocolates and candies-** Many candies involve the crystallization of sugar which varies the texture of sugar crystals. Candies can be found in many different forms including caramel, marshmallows, and taffy.
- **Cookies-** Cookies are similar to cakes (the word coming from the Dutch word “koekje” meaning little cake). Historically cookies were small spoonfuls of cake batter placed in the oven to test the temperature. Cookies can come in many different forms. Examples include layered bars, crispy meringues, and soft chocolate chip cookies.
- **Custards and puddings-** These kinds of sweets usually include a thickened dairy base. Custards are cooked and thickened with eggs. Baked custards can include crème brulee and flan. Puddings are thickened with starches.
- **Donuts-** Donuts are a sweet that can be considered a breakfast or dessert. It is considered a deep fried dessert made from flour. It is the shape of a circle, and sometimes has a hole in the center. There are two-types of donuts: ring-shaped with the circle in the middle, and filled. A filled donut differs from a ring-shaped donut as it is often filled with fruit preserves, cream, custard or other sweet fillings. Square-shaped donuts are commonly referred to as fritters.
- **Frozen desserts-** ice cream and gelato both fit into this category. Ice cream is a cream base that is churned as it is frozen to create a creamy consistency, while gelato uses a milk base and has less air than ice cream. Thirdly, sorbet is made from churned fruit and is not dairy based.

- **Pastries-** Pastries can either take the form of light and flaky bread with an airy texture or unleavened dough with a high fat content. Pastries can be eaten with fruits, chocolates, or other sweeteners and are often eaten with tea.
- **Pies-** Pies and cobblers are a crust with a filling. The crust can be either made from either a pastry or crumbs. The fillings can be anything from fruits to puddings.
- **Miscellaneous desserts-** Many desserts cannot be categorized such as cheesecake. Though cheesecake is similar to a custard, it is named “cake”. Many desserts can span the categories and several don’t fit in a category at all.

Chocolate Soufflé with Grand Marnier (France) - Chocolate soufflé is a decadent and time-honored dessert in France. Chocolate soufflé is a lightly baked cake comprised of egg yolks, beaten egg whites, sugar, and a gooey chocolate interior. The dessert has a reputation for being notoriously difficult to execute, as the dish has to be served immediately to prevent the soufflé from dropping and becoming dense. In France, the soufflé is often infused with Grand Marnier, an orange liqueur that accents the richness of the chocolate with a citrusy flavor.

Apple Pie (United States) Apple pie is heralded as the quiet essential American dessert, serving as a culinary symbol of the nation's prosperity and pride in the 19th and 20th centuries. Apple pie consists of a pastry pie crust and an apple filling often seasoned with nutmeg or cinnamon. The pie takes about an hour in the oven to bake. Interestingly, apple pie-making does not originate from the United States, but rather it was a concept brought over by the Pilgrims from England, where the pies were made with unsweetened apples covered by an inedible shell. Eventually, the recipe developed into the well-known dessert enjoyed today.

Gelato (Italy) Gelato differs from ice cream in its flavor and texture. The frozen dessert is made with milk as opposed to cream, which gives the dish a lower fat content, and has less air whipped into it than ice cream, making it denser and often more intense in flavor. Gelato is an Italian term that means "frozen." The history of the dessert is rooted in 16th century Italy, where according to many accounts, a Florentine named Bernardo Buontalenti presented his gelato creation to the royal court of Caterina dei Medici.

Maple Taffy (Canada) Maple taffy is a sugary sweet Canadian confection traditionally made from maple syrup and snow. Maple syrup is boiled to 234 degrees Fahrenheit and then poured onto fresh snow, where the cold temperature hardens the concoction into an edible treat that

consumers often use wooden sticks or dinner forks to eat. Often, maple taffy is served with coffee, tea, donuts, or even sour dill pickles.

Where to try maple taffy: Maple Taffy is a seasonal treat that can be found scattered around Quebec and Eastern Ontario, especially in early spring.

Basbousa (Egypt) Basbousa is an Egyptian street food that is a semi-sweet semolina cake often topped with spoonfuls of lime curd, whipped cream, and berries.

Belgian Waffles (Belgium)Waffles are the signature dessert of Belgium, originating with a recipe from the Middle Ages, when waffles were sold as unleavened crisp cakes made of barley and oats baked in a wafer iron.

In Belgium, there are two types of waffles: the Brussels waffle and the Liege waffle. The Brussels waffle is what is universally known as the Belgian waffle and is served with chocolate, fruit, or whipped cream.

The Liege waffle is baked from brioche bread dough and is said to be chewier, sweeter, and richer than the Brussels waffle. Popular Liege waffle flavors include plain, vanilla, and cinnamon.

Tangyuan (China) Tangyuan are colorful, glutinous rice balls filled with black sesame, peanut, and red bean pastes. Tangyuan are often served in a sweet broth of ginger and rock sugar. The chewy balls are often served on the winter solstice and at other Chinese holidays.

Pavlova (Australia) Pavlova is a popular dessert in Australia and New Zealand of meringue crust topped with whipped cream and fresh fruits, such as kiwi and strawberries. Pavlova is named for Russian ballerina Anna Pavlova, who was known for her lithe and airy style of dancing, which is similar to the texture of the dessert.

There is an ongoing controversy over whether pavlova is native to New Zealand or Australia and despite the Oxford English Dictionary stating in 2010 that the dish comes from New Zealand, pavlova is still enjoyed and debated in both regions.

Mochi Ice Cream (Japan)Mochi ice cream is a signature Japanese treat that infuses chewy mochi, small pastel-colored glutinous rice cakes dusted with powdered sugar, with sweet and

fruit-flavored ice cream. One variation is mochi ice cream balls, which are ice cream covered in mochi.

Sacher Torte (Austria)

Created in 1832 when a chef's apprentice named Franz Sacher presented his sweet creation to Prince Metternich, the Sacher torte is a dense, bittersweet chocolate sponge cake with a layer of apricot jam filling.

Arroz con Leche (Mexico) Arroz con leche is a sweetened rice pudding with a thick and creamy consistency, often infused with cinnamon and raisins, which is popular in Mexico and many Latin American countries.

Thai Mango Sticky Rice (Thailand) What is Thai mango sticky rice? Popular during Thai New Year's celebrations but eaten year-round, Thai mango sticky rice is a combination of sweet sticky rice, fresh mango slices, and coconut sauce. Sometimes the notoriously pungent durian is used in place of mango.

Where to try Thai mango sticky rice: Chatuchak Market, Bangkok

Kanafeh (Israel) What is kanafeh? Israeli kanafeh is a sweet phyllo dough or semolina orange-colored pastry stuffed with goat cheese and drenched in syrup. This Arab dessert has many variations and is popular in many Middle Eastern countries.

Where to try kanafeh? Jafar Sweets in Jerusalem, where kanafeh is made fresh daily.

Passion Fruit Mousse (Paraguay) What is passion fruit mousse? Passion fruits are native to the subtropical region of Paraguay. Passion fruit mousse is made with milk, heavy cream, and strained passion fruit pulp, which are mixed with a gelatin, egg whites, and sugar.

Where to try passion fruit mousse: Paulista Grill, Asunción

Apple Strudel (Germany) What is apple strudel? Apple strudel is a flaky pastry covered in caramelized or powdered sugar and filled with sliced apples, cinnamon, raisins, and roasted breadcrumbs. Apple strudel is served warm, often with whipped cream, vanilla sauce, or vanilla ice cream.

Where to try apple strudel: Theodore Tucher in Berlin, where George Bush and German Chancellor Angela Merkel have eaten the flaky dessert.

Kueh Bangkit (Malaysia) What is kueh bangkit? Kueh bangkit are coconut cookies that are a staple at Malaysian holidays, particularly New Year's celebrations.

Kueh bangkit are floral-shaped cookies that are crumbly on the outside and airy on the inside, and melt in the mouth. The traditional recipe calls for tapioca flour, pandan, coconut milk, sugar, and eggs. yolks.

Where to try kueh bangkit: While mostly homemade, kueh bangkit can be found in night markets around Malaysia, especially before big festivities.

Kaab el Ghzal (Morocco) What is kaab el ghzal? Translated from Arabic which means "gazelle horns," these crescent-shaped cookies are made of almond paste, orange-flower water, cinnamon, and topped with optional powdered sugar.

Where to try kaab el ghzal: Al Jawda Pastry Shop, Marrakech

CHAPTER 9: BASIC BAKERY TERMS

1. Angel Food Cake: A type of cake made with meringue (egg white and sugar) and flour.
2. Baba: A type of yeast cake that is soaked in syrup.
3. Bagel: is a bread product, traditionally shaped by hand into the form of a ring from yeasted wheat dough, roughly hand-sized, which is first boiled for a short time in water and then baked.
4. Bagged
5. Baked Alaska: A dessert consisting of ice cream on a sponge base, covered with meringue and browned in the oven.
6. Baklava: A Greek or Middle Eastern dessert made of nuts and phyllo dough and soaked in syrup.
7. Bloom: A whitish coating on chocolate, caused by separated cocoa butter.
8. Bouche de noel- A **yule log** or **bûche de Noël** is a traditional dessert served near Christmas, especially in [France](#).
9. Careme-
10. Creme Patisserie- **Custard** is a variety of culinary preparations based on a cooked mixture of milk or cream and egg yolk. Depending on how much egg or thickener is used, custard may vary in consistency from a thin pouring sauce (crème anglaise) to a thick pastry cream (**crème pâtissière**) used to fill éclairs
11. Challah- is a Jewish braided bread eaten on Sabbath and holidays

12. Charlotte: Charlotte 1) A cold dessert made of Bavarian cream or other cream in a special mold usually lined with ladyfingers or other sponge product. 2) A hot dessert made of cooked fruit and baked in a special mold lined with strips of bread.
13. Charlotte Ring
14. Chiffon Cake Chiffon Cake A light cake made by the chiffon method. Chiffon Method is a cake mixing method involving the folding of egg whites into a batter made of flour, egg yolks and oil.
15. Chiffon Pie A pie with a light fluffy filling containing egg whites and usually gelatin.
16. Chocolate Couverture- **Couverture chocolate** is a very high quality chocolate that contains extra cocoa butter (32-39%).
17. Ciabatta- is an Italian white bread made from wheat flour and yeast. A toasted sandwich made from small loaves of Ciabatta is known as a panino (plural *panini*)
18. Cobbler - A fruit dessert similar to a pie but without a bottom.
19. Compote - Fruit cooked in sugar syrup.
20. Conching-
21. Confectionery- **Confectionery** is related to food items that are rich in sugar and often referred to as a *confection*. *Confectionery* refers to the art of creating sugar based dessert forms, often with *pastillage*
22. Coulis- is a form of thick sauce made from puréed and strained vegetables or fruits.
23. Coupe- A dessert consisting of one or two scoops of ice-cream or sherbet, placed in a glass and topped with any number of syrups, fruits and garnishes - a sundae.
24. Couverture - Natural, sweet chocolate containing no added fats other than natural cocoa butter; used for dipping, molding, coating and similar purposes.
25. Cream of tartar- **Potassium bitartrate**, also known as **potassium hydrogen tartrate**, is a byproduct of winemaking. In cooking it is known as **cream of tartar**
26. Crème Anglaise - light vanilla flavored custard sauce made of milk, sugar and egg yolks.
27. Crème Bavaois- is a dessert similar to pastry cream but thickened with gelatin or isinglass instead of flour or cornstarch, and flavoured with liqueur
28. Crème Brulee- also known as **burnt cream** is a dessert consisting of a rich custard base topped with a contrasting layer of hard caramel. It is normally served at room temperature.
29. Crème Chantilly- Whipped cream is often sweetened and sometimes flavored with vanilla, and is often called **Chantilly cream** or **crème Chantilly**
30. Crème Chiboust- is a crème pâtissière (pastry cream) lightened with stiffly beaten egg whites.
31. Crème Fraiche- is a soured cream containing 30–45% butterfat.
32. Dacquoise- A **dacquoise** is a dessert cake made with layers of almond and hazelnut meringue and whipped cream or buttercream.
33. Devil's Food Cake - A chocolate cake made with a high percentage of baking soda, which gives the cake a reddish tint.
34. Dobos Torte - A Hungarian cake made of seven thin layers filled with chocolate buttercream and topped with caramelized sugar.
35. Docking - Piercing or perforating pastry dough before baking in order to allow steam to escape and to avoid blistering
36. English Muffin- is a small, round, flat (or thin) type of yeast-leavened bread which is commonly served split horizontally, toasted, and buttered.

37. Focaccia- Focaccia is popular in Italy and is usually seasoned with olive oil and salt, and sometimes herbs, and may be topped with onion, cheese and meat, or flavored with a number of vegetables.
38. Fougasse- In French cuisine, **fougasse** is a type of bread typically associated with Provence but found (with variations) in other regions. Some versions are sculpted or slashed into a pattern resembling an ear of wheat
39. Frangipane- A type of almond flavored cream.
40. Frozen Mousse - A still frozen dessert containing whipped cream.
41. Fruit Cobbler- **Cobbler** refers to a variety of dishes, particularly in the United States and United Kingdom, consisting of a fruit or savoury filling poured into a large baking dish and covered with a batter, biscuit, or pie crust before being baked.
42. Galette- Galette is a term used in French cuisine to designate various types of flat round or freeform crusty cakes
43. Gateau St – Honore- This classic French dessert is a circle of puff pastry at its base with a ring of pâte à choux piped on the outer edge. After the base is baked small cream puffs are dipped in caramelized sugar and attached side by side on top of the circle of the pâte à choux. This base is traditionally filled with crème chiboust and finished with whipped cream using a special St. Honoré piping tip
44. Gaufre - French word for 'waffle'.
45. Gelato- is the Italian word for ice cream
46. Ice Cream - churn-frozen mixture of milk, cream, sugar, flavorings, and sometimes eggs.
47. Icebox
48. Italian Meringue - A meringue made by whipping boiling syrup into egg whites.
49. Kirschtorte- Gateaux. Cake with fresh fruits and whipped cream.
50. Kugelhof - A type of rich, sweet bread or coffeecake usually made in a tube type pan.
51. Langue De Chat - A thin, crisp cookie The French name means "cats tongue," referring to the shape of the cookie.
52. Lattice-
53. Lattice Crust
54. Leavening- The production or incorporation of gases in a baked product to increase volume and to produce shape and texture.
55. Linzertorte- A tart made of raspberry jam and a short dough containing nuts and spices.
56. Liqueurs And Fruit Alcohols
57. Marshmallow- A light confection, icing, or filling made of meringue and gelatin (or other stabilizers).
58. Mimosa- A **Mimosa** is a cocktail-like drink composed of one part champagne (or other sparkling wine) and one part thoroughly chilled citrus fruit juice, usually orange juice unless otherwise specified (e.g. "grapefruit [juice] mimosa"). It is traditionally served in a tall champagne flute with a morning brunch as hair of the dog or to guests at weddings
59. Mousseline
60. Napoleon - A desert made of layers of puff pastry filled with pastry cream.
61. Nougatine - **brown nougat**("mandorlato" in Italy and *nougatine* in French) which is made without egg whites and has a firmer, often crunchy texture. Nougat is made with sugar and/or honey, roasted nuts (almonds, walnuts, pistachios, hazelnuts, and

recently macadamia nuts are common), whipped egg whites, and sometimes chopped candied fruit.


62. Opera Cake- **Opera cake** is a French type of cake. It is made with layers of almond sponge cake (known as *Joconde* in French) soaked in coffee syrup, layered with ganache and coffee buttercream, and covered in a chocolate glaze
63. Panna Cotta- is an Italian dessert made by simmering together cream, milk and sugar, mixing this with gelatin, and letting it cool until set
64. Pannetone- is a type of sweet bread loaf originally from Milan, Italy. usually prepared and enjoyed for Christmas and New Year.
65. Paris Brest - A dessert consisting of a ring of baked choux paste filled with cream.
66. Pate A Bombe- A *pâte à bombe* is the French term for a mixture used as a base for making chocolate mousse and other mousse-like desserts. It is made by pouring a sugar syrup that has been cooked until it is 121 degrees celsius (249.8 fahrenheit) over egg yolks and whipping the mixture until it is completely cold and has transformed into a uniform, unctuous, airy mass

67. Pate brisee - **Pâte à foncer** *Pâte à foncer* is French shortcrust pastry that includes egg. Egg and butter are worked together with a small quantity of sugar and salt before the flour is drawn into the mixture and cold water added to bind it. **Pâte Brisée** This is similar to *pâte à foncer*, but is lighter and more delicate due to an increased quantity of butter — up to three fifths the quantity of flour.
68. Pate Feuillete
69. Pate Sablee- *Pâte sablée* is the richest of the French short pastry crusts. It is used to make sweet flans and tarts.
70. Pate Sucree- sweetened sweetcrust pastry , also known as **paté sucrée**, in which sugar and egg yolks have been added (rather than water) to bind the pastry
71. Patisserie- is the type of French or Belgian bakery that specializes in pastries and sweets
72. Petit Four A delicate cake or pastry small enough to be eaten in one or two bites.
73. Phyllo - paper-thin dough or pastry used to make strudels and various Middle Eastern and Greek desserts.
74. Pithiviers - A cake made of puff pastry filled with almond cream.
75. Pre – Ferment
76. Pullman Loaf - long, rectangular loaf of bread
77. Quark- **Quark** is a type of fresh dairy product. It is made by warming soured milk until the desired degree of coagulation (denaturation) of milk proteins is met, and then strained. It is similar to the Indian Chakka. Quark usually has no salt added.
78. Retarding - Refrigerating a yeast dough to slow the fermentation.
79. Sabayon - A foamy dessert or sauce mad eof egg yolks whipped with wine or liqueur.
80. Sacher Torte- is a specific type of chocolate cake, or torte
81. Sacristian - small pastry made of a twisted strip of puff pastry coated with nuts and sugar
82. Savarin - type of yeast bread or cake that is soaked in syrup.
83. Scones - type of biscuit or biscuit-like bread.
84. Short cakes- **Shortcake** is a sweet cake or biscuit (in the American sense: that is, a crumbly bread that has been leavened with baking powder or baking soda.
85. Short Dough-
86. Shortbread - A crisp cookie made of butter, sugar and flour.

87. Sorbet - French for sherbet
88. Sorbetto - frozen dessert similar to a frappé, usually made from fruit juice and having a mushy consistency.
89. St. Honoré - (1) A dessert made of a ring of cream puffs set on a short dough base and filled with a type of pastry cream (2) The cream used to fill this dessert, made of pastry cream and whipped cream and whipped egg whites
90. Stencil Paste-
91. Strudel - 1) A type of dough that is stretched until paper thin. 2) A baked item consisting of a filling rolled up in a sheet of phyllo or strudel dough.
92. Tablage- *marble-slab method of tempering chocolate*
93. Tarte Tatin- The **tarte Tatin** is an upside-down tart in which the fruit (usually apples) are caramelized in butter and sugar before the tart is baked
94. Tiramisu- meaning "pick me up" or "lift me up" is a popular coffee-flavoured Italian dessert. It is made of ladyfingers dipped in coffee, layered with a whipped mixture of egg yolks, egg whites, sugar and mascarpone cheese, flavoured with cocoa.
95. Torte - German word for various types of cakes, usually layered cakes
96. Trifle- a cold dessert of sponge cake and fruit covered with layers of custard, jelly, and cream.
97. Tunneling- A condition of muffin products characterized by large, elongated holes; caused by over-mixing.
98. Vacherin- A crisp meringue shell filled with cream, fruits or other items.v
99. Zabaglione - An Italian dessert or sauce made of whipped yolks and Marsala wine.





International breads






Name: Image: Type: Origin: Description:





<p><u>Anpan Bun</u></p>	<p><u>120px</u></p>	<p>Sweet bun</p>	<p><u>Japan</u></p>	<p>A bun that is usually filled with red bean paste, or white beans, sesame seeds, or chestnuts.</p>
<p><u>Bagel</u></p>		<p>Yeast/whole wheat bread</p>	<p>Worldwide (<u>Eastern Europe/Ashkenazi Jewish</u> origin)</p>	<p>A ring-shaped pastry, usually with a dense, chewy interior; Usually topped with sesame or poppy seeds baked into the surface.</p>
<p><u>Baguettes</u></p>	<p><u>120px</u></p>	<p>Yeasted breads</p>	<p><u>France</u>, Worldwide</p>	<p>Some thin elongated loaves, made of water, flour, yeast, salt, instantly recognizable by slits cut in top surfaces before baking to allow gas expansion.</p>
<p><u>Balep Korkun</u></p>	<p><u>120px</u></p>	<p>Flatbread</p>	<p>Central <u>Tibet</u></p>	<p>A round flatbread, easy to make, made of barley flour, water, baking powder, cooked in frying pan; It</p>




				is a type of Bannock (food) .
Banana Bread	120px	Sweet bread	Worldwide	A dense bread, made with mashed bananas, often a moist, sweet, cake-like quick bread, but some recipes are traditional yeast breads.
Bannock Bread	120px	Flatbread	United Kingdom , Canada	A bread that has modern types are made with baking soda or baking powder as leavening agent, giving a light, airy texture.
Bara Brith		Fruit bread	Wales	A bread that is sometimes termed "speckled bread", raisins , z ante currants and candied peels are added to dough.
Barbari Bread	120px	Flatbread	Iran , Northwestern Afghanistan	A bread invented by the Barbar tribes of Iran and Northern





				Afghanistan.
Bastone Breads	120px	Yeast bread	Italy	Some breads that are shorter and thicker than French baguettes, sometimes made with sesame seed garnish.
Beer Bread	120px	Yeasted bread	Canada	A bread made with regular beer or other types such as stout or dark beer.
Bhakri Flatbread	120px	Unleavened flatbread	India, Pakistan	A bread that is usually grayish in color, made of cereals and thus high in protein and fiber like jowar, bajra, or maize.
Bhatoora		Fried bread	India	Very chewy bread made by flattened dough being fried until it puffs into a light brown fluffy form.







<p>Bing</p>		<p>Flatbread</p>	<p>China</p>	<p>Similar to a Mexican tortilla, only much thicker; usually cooked on a griddle.</p>
<p>Biscuit</p>		<p>Yeasted bread or unleavened</p>	<p>worldwide</p>	<p>In Europe, biscuits are crisp and dry; in North America, biscuits are light and fluffy.</p>
<p>Black bread</p>		<p>Rye bread</p>	<p>worldwide</p>	<p>Made of rye grain, usually dark colored and high fiber, ranges from crispy in texture to dense and chewy.</p>
<p>Bofrot</p>		<p>Doughnut</p>	<p>Ghana</p>	<p>Round, comes in various sizes, made with white flour.</p>
<p>Bolani</p>		<p>Flatbread</p>	<p>Afghanistan</p>	<p>Has a very thin crust and can be stuffed with a variety of ingredients, such as potatoes, spinach, lentils, pumpkin, or leeks.</p>






Borodinskij bread	120px	Yeast bread	Russia	Made with rye flour
Boule		Yeasted bread	France	From the French for "ball".
Roll		Leavened	Europe , North America	Short, oblong, served usually before or with meals, often with butter.
Breadstick		Dry bread	Italy	A dry bread formed into sticks, served as an appetizer .
Brioche		Sweet yeasted bread	France	A highly enriched French bread, noted for its high butter and egg content, commonly served as a component of French desserts.
Broa		Cornbread	Portugal , Brazil	Unlike the cornbread typical of the southern United States, made of mix of cornmeal and wheat or rye flour, leavened





				with yeast rather than baking powder or baking soda.
Brown bread		Rye or wheat bread	Ireland , North America	Made with a significant amount of whole grain flour, usually rye or wheat; sometimes made with molasses or coffee. Also known as "wholemeal bread".
Bun		Small loaf	worldwide	Small, dome-shaped roll, of sweet bread, or savoury bread commonly used in sandwiches.
Canadian White		Leavened	Canada	A thick, protein-rich sliced sandwich bread.
Česnica		Soda bread	Serbia	Baked during Christmas season with a solid silver coin in the dough for good luck; the family member





				whose bread piece contains the coin is viewed as the most fortunate for that year.
Challah		Leavened bread	Worldwide	Braided, made with wheat flour, yeast, oil/butter and eggs (optional), usually made by Jewish people for Shabbat .
Chapati		Unleavened flatbread	India , Pakistan	Thin in size and is made with wheat flour; Usually eaten with cooked dal (lentil soup), vegetable curry, chicken and mutton curry dishes; pieces are used to wrap around and pick up each bite of the cooked dish.
Christmas wafer		Ceremonial bread	Eastern Europe	Christmas wafers are usually embossed with images of Christian figures, such as Jesus or Virgin Mary.





<p>Ciabatta</p>		<p>White bread</p>	<p>Italy</p>	<p>Loaf is somewhat elongated, broad and flattish and, like a slipper, should be somewhat collapsed in the middle.</p>
<p>Colomba Pasquale</p>		<p>Ceremonial bread</p>	<p>Italy</p>	<p>Easter Dove in English, is dove shaped and covered with icing sugar and almonds, to be eaten at Easter in celebration; more properly viewed as a cake, not a bread.</p>
<p>Coppia Ferrarese</p>		<p>Sourdough</p>	<p>Italy</p>	<p>Twisted in shape. Made with flour, lard, olive oil, and malt.</p>
<p>Cornbread</p>		<p>Cornbread</p>	<p>North America, South America</p>	<p>Can be baked or fried, has a golden appearance, usually has a moist interior.</p>
<p>Crêpe</p>		<p>Pancake</p>	<p>France, Canada</p>	<p>Extremely thin pancakes, can be stuffed with cheese, asparagus, ham, spinach, eggs, ratatouille, mushrooms, artichoke, or meat products. In Canada, they</p>






				are often filled with fruit and consumed as a breakfast dish.
Crisp bread		Flatbread	Scandinavia	Very dry, traditionally consists of wholemeal rye flour, salt, and water.
Crumpet		Savoury griddle cake	United Kingdom, Commonwealth	Usually circular and flat, but thick, with pores in upper surface.
Curry bread		Small loaf	Japan	Some Japanese curry is wrapped in a piece of dough, which is coated in flaky bread crumbs, and deep fried usually, or baked.
Dampfnudel		White bread	Germany	Usually dense and moist with a white top surface.
Dinkelbrot		Yeasted bread	Germany	Made of 90% spelt flour or coarse meal.
Doughnut		Cake	Europe, North America	In America a bagel shaped fried cake classically topped with icing and or sprinkles. Originally in Europe it was a




				small round fried cake topped with powdered sugar.
Dosa		Savoury pancake	South India	fermented crepe or pancake made from rice batter and black lentils. It is also served with variety of fillings like potato, coconut, paneer, vegetables, dry fruits etc.
Filone		Leavened	Italy	Similar to French baguette .
Focaccia		Yeasted bread	Italy	Often punctured with a knife to relieve surface bubbling, or dotted.
Fougasse		Yeasted bread	France	Some versions are sculpted or slashed into a pattern resembling an ear of wheat.
Frybread		Leavened	United States	A flat dough fried or deep-fried in oil, shortening, or lard. The dough is generally leavened by yeast or baking powder.
Green onion pancake		Flatbread	China	General term.



<p>Gugelhupf(Kugelhupf)</p>		<p>Ring cake</p>	<p>Germany, Austria,Switzerland, Alsace, Groningen</p>	<p>Soft yeast dough containing raisins, almonds and Kirschwasser cherry brandy, some also with candied fruits, nuts; some filled, often with a layer of sweetened ground poppy seeds.</p>
<p>Kulcha</p>		<p>Flatbread</p>	<p>India, Pakistan</p>	<p>Made of Maida flour dough, mashed potatoes, onion (optional), lots of spices, rolled into flat round shape, baked until golden brown, usually rubbed with butter, eaten with spicy chickpea curry.</p>
<p>Lagana</p>		<p>Ceremonial</p>	<p>Greece</p>	<p>Special kind of azyme bread, baked only on Clean Monday, the first day of Lent.</p>
<p>Lahoh</p>		<p>Leavened</p>	<p>Djibouti, Somalia,Yemen, Israel</p>	<p>Spongy, pancake-like, dough of plain flour, self-raising flour, warm water, yeast, pinch of salt.</p>





Lavash		Flatbread	Armenia	Soft, thin, dough is rolled out flat, flexible when fresh, easier to use for wrap sandwiches, dries fast and grows brittle and hard, for long storage.
		Flatbread	Norway	Soft, made of potato, milk or cream (or sometimes lard), flour, cooked on a griddle.
Luchi		Flatbread	Orisa , Assam , Bengal	Made of wheat flour typical of Oriya, Assamese and Bengali cuisine, dough is made by mixing fine maida flour with water and spoonful of ghee, then divided in small balls, flattened by rolling-pin, individually deep-fried in cooking oil or ghee, 4-5 inches diameter, usually served with curries or gravies.
Melonpan		Sweet bun, crispy	Japan	Made of enriched dough covered in thin layer of crispy cookie dough.






Michetta		Leavened	Italy	Also known as rosetta, it has a hollow, bulging shape.
Monkey bread		Pastry	United States	Also termed African coffee cake, golden crown, pinch-me cake and bubbleloaf; is a sticky, gooey pastry served as a breakfast treat.
Montreal-style bagel		Bagel	Canada	A bagel that is boiled in honey-sweetened water and then baked in a wood-fired oven. It is smaller and denser and uniquely incorporates egg and honey in the dough. It is the only bagel to have gone to space, taken by astronaut Gregory Chamitoff .
Muffin		Yeast leavened	United Kingdom: United States, Australia, Canada, New Zealand	Small, round, thin, usually dusted with cornmeal and served split horizontally, toasted, buttered, eaten as a snack alone or part of meal, usually breakfast





				or, in UK and Ireland, early-evening tea.
Naan		Flatbread	Iran , Northern India , Pakistan , Afghanistan	General term for leavened, oven-baked, typical of South and Central Asia.
Pain de mie		White bread	France	Slightly sweet sandwich-style loaf with a dense crumb.
Pancake		Flatbread	North America	Thin, flat, round cake, most are quick breads, some use a yeast raised or fermented batter, most are cooked on hot griddle or frying pan, one side first and flipped partway through to cook other side.
Pandesal		Sweet Bread	The Philippines	A rounded bread made of flour, eggs, yeast, sugar, and salt.
Pandoro		Holiday bread	Italy	Traditional sweet yeast loaf, most popular around Christmas and New Year,




				typically Veronese, usually shaped like afrustum with 8 pointed-star section, often served dusted with vanilla scented icing sugar made to resemble the snowy peaks of winter Italian Alps.
Panettone		Sweet	Italy , Switzerland , Malta , Latin America	Fluffy, base round, octagon or star section, takes days to make to cure acidic dough like sourdough, contains candied citrus, raisins, sliced vertically, served with cider or champagne, esp. for Christmas, New Year.
Panfocaccia		Leavened	Italy	Similar to focaccia .
Papadum		Flatbread	India	Thin, crisp cracker-like, served with meal, as appetizer, as final item in meal, or as snack, eaten



				with various toppings: chopped onions, chutney, other dips and condiments.
Paratha		Flatbread	India , Pakistan	Unleavened, made by pan frying whole wheat dough, ghee or cooking oil usually in dough and on done loaves, usually stuffed with vegetables or cheese, served with butter, chutney, spicy sauces or curries of meat and vegetables.
Parotta		Flatbread	Southern India	A parotta or barotta, is a common layered flatbread of Southern India. This is not to be confused with the North Indian Paratha. Parottas are usually available in restaurants and road side shops across Kerala, Karnataka, Tamil Nadu and the Middle East.



<p>Pizza</p>		<p>Leavened flatbread</p>	<p>Italy, Switzerland, United States</p>	<p>Modern pizza was originally made with leavened wheat flour topped with tomato, now it also includes almost any other topping ingredients.</p>
<p>Potato bread</p>		<p>Leavened or unleavened</p>	<p>Worldwide</p>	<p>Potato replaces part of normal wheat flour, ratio of potato to wheat varies much, leavened or unleavened, may have many other ingredients baked in, varied cooking methods.</p>
<p>Potbrood</p>		<p>Leavened</p>	<p>South Africa</p>	<p>Produced in a cast iron pot covered with wood coals, there are a wide range of flavours but is often made with wheat flour and sweetcorn.</p>
<p>Pretzel</p>			<p>Swabia, Switzerland, Alsace, Vorarlberg</p>	<p>An Alemannic knot-shaped bread, sometimes soft, sometimes hard, sometimes sweet, sometimes salty.</p>





<p>Pumpernickel</p>		<p>Leavened</p>	<p>Central Europe, Eastern Europe, Groningen, Friesland</p>	<p>Very heavy, dense, slightly sweet dark pure rye traditionally made with coarsely ground flour, now often made with mixed flour and whole grain berries.</p>
<p>Puri</p>		<p>Flatbread</p>	<p>India</p>	<p>Unleavened, made of wheat flour (refined, whole-wheat, or coarse), dough of flour and salt rolled into small circle or bigger and cut into small circles, deep fried in ghee or vegetable oil, puffs up in all directions like a round ball from steam inside.</p>
<p>Quick bread</p>		<p>Leavened</p>	<p>North America</p>	<p>Leavened with substance other than yeast.</p>
<p>Rice bread</p>		<p>Rice bread</p>	<p>Japan</p>	<p>Made from rice flour.</p>
<p>Roti</p>		<p>Flatbread</p>	<p>India, Pakistan, Bangladesh, Nepal, Sri Lanka, Trinidad, Tobago</p>	<p>Unleavened, made from stone ground wholemeal flour, traditionally named atta flour.</p>






Rumali Roti		Flatbread	Pakistan, Northern India	.
Rye bread		Leavened	Europe , North America	Made of various fractions of rye grain flour, color light to dark via flour used and if colors added, usually denser and higher fiber than many common breads, darker color, stronger flavor.
Salt rising bread		Leavened	Scotland	Made of wheat flour, starter of liquid (water or milk), either corn, potatoes, or wheat, and some other minor ingredients; result has dense crumb and positive cheese-like flavor.
Sourdough bread		European	Europe	General term.
Tandoor bread		Flatbread	Middle East, Far East	.






<p>Tiger bread</p>		<p>Rice bread</p>	<p>Netherlands</p>	<p>Rice paste bread made with sesame oil and with a pattern baked into the top made by painting rice paste onto the surface prior to baking. The paste dries and cracks during the baking process, creating a two-colour effect similar to a tiger's markings, hence the name.</p>
<p>Tortilla</p>		<p>Flatbread</p>	<p>Mexico</p>	<p>General term.</p>
<p>Vienna bread</p>		<p>Leavened</p>	<p>Vienna, Austria</p>	<p>A type of bread that is produced from a process developed in Vienna, Austria, in the 19th century. The Vienna process in part used high milling of Hungarian grain, cereal press-yeast for leavening, and care and thought in the production process.</p>






Zopf		Leavened white	Switzerland , Germany	Made of white flour, milk, egg, butter, yeast, dough is braided , brushed with egg yolk before baking, forming a gold crust.
Zwieback		Leavened	Germany	A type of crisp, sweetened bread, made with eggs and baked twice. It is sliced before it is baked a second time, which produces crisp, brittle slices that closely resemble melba toast.







Name	Image	Origin	Main ingredients
Šakotis		Lithuanian-Polish	Traditional cake created by painting layers of rotating spit while being baked.
Yōkan		Japan	Red bean paste
Wine cake		Colombia	Wine





Name	Image	Origin	Main ingredients
Whoopie pies		United States	Cocoa, vanilla
Welsh cake		United Kingdom (Wales)	Currants
Wedding cake		Unknown	Varies
Victoria sponge cake		United Kingdom	Varies
Upside-down cake		United Kingdom	Varies
Tunis cake			Chocolate and marzipan







Name	Image	Origin	Main ingredients
Tres leches cake		Costa Rica, Mexico or Nicaragua	Evaporated milk , condensed milk , and heavy cream
Torta Tre Monti		San Marino	Hazelnuts
Tompouce		Netherlands	Cream, icing
Tiramisu		Italy	Savoiardi and espresso
Teacake		United Kingdom	Currants and sultanas
Tea loaf		United Kingdom	Currants, sultanas and tea
Tarte Tatin		France	Varies- commonly apple or pear
Swiss roll		United Kingdom , not Switzerland as the name implies	Jam and creamy filling; may come in different






Name	Image	Origin	Main ingredients
Suncake		Taiwan	Flaky pastry
Sultana and cherry cake		United Kingdom	Sultanas and glace cherries
Streuselkuchen		Germany	Streusel (butter, flour and sugar)
Stack cake		United States	Varies
St. Honoré cake		France	Caramel and Chiboust cream
Sponge cake		United Kingdom	Flour, sugar and eggs.
Spice cake		North America	Predominant flavorings include spices such as cloves, allspice, ginger and/or mace







Name	Image	Origin	Main ingredients
<u>Spekkoek</u>		<u>Dutch East Indies</u>	Multi-layered, containing cinnamon, clove, m
<u>Soufflé</u>		<u>France</u>	Cream sauce or purée with beaten egg whites
<u>Simnel cake</u>		<u>United Kingdom</u>	Marzipan and <u>dried fruit</u>
<u>Sfouf</u>		<u>Lebanon</u>	<u>Almond</u> and <u>semolina</u>
<u>Sesame seed cake</u>			Sesame seeds, often with honey as a sweetener
<u>Sernik</u>		<u>Poland</u>	Cream cheese , sponge cake , raisins and diff






Name	Image	Origin	Main ingredients
Sekacz		Poland	Sponge cake with chocolate
Salzburger Nockerl		Austria	Egg yolk, flour and milk
Sachertorte		Austria	Apricot, and cream
Ruske kape		Bosnia and Serbia	Chocolate, and coconut
Rum cake		Caribbean	Rum, dried fruit
Rum baba		Italian	Rum, yeast, whipped cream
Red velvet cake		United States	red colouring and cocoa






Name	Image	Origin	Main ingredients
Red bean cake		Japan and China	Azuki bean and red bean paste
Qumeshtore me pete		Albania	cream vanillia,syrup,juice lemon and lemon s
Queen Elisabeth cake		Quebec, Canada	Coconut, dates
Punschkrapfen		Austria	Cake crumbs, nougat chocolate, apricot jam,
Pumpkin bread		United States	Pumpkin , sometimes chocolate
Prinzregententorte		Germany	Sponge cake, buttercream and dark chocolate





Name	Image	Origin	Main ingredients
Prinsesstårta		Sweden	Alternating layers of sponge cake and whipped cream with layers of berry jam and a layer of custard , all topped with (green) marzipan .
Pound cake		United Kingdom	Butter, sugar
Pineapple upside-down cake		United Kingdom	Pineapple
Piernik		Poland	Gingerbread with cinnamon , ginger , cloves
Petits fours		France	Butter cream
Pavlova		Australia/New Zealand	Egg white and sugar (meringue); named after






Name	Image	Origin	Main ingredients
Parkin		United Kingdom	Treacle and oats
Panepato		Italy	Varies, almonds, hazelnuts, pine nuts
Panettone		Italy	Raisins, orange peel, and lemon peel
Paczki		Poland	Round Cake with spongy yeast containing str , budyn and (sweet) cheese and other chocol
Orange and polenta cake		Italy	Oranges and polenta
Oponki		Poland	A type of round spongy yeast cake with sweet other chocolate
Opera cake		France	Ganache , sponge cake , and coffee syrup






Name	Image	Origin	Main ingredients
Muffin		Unknown	Varies
Mooncake		China	Varies
Molten chocolate cake		United States	Chocolate.
Mille-feuille		France	Also known as a Napoleon, is three layers of alternating with two layers of pastry cream. T in white (icing) and brown (chocolate) strips,
Mazurek		Poland	An Easter cake with a type of shortcrust tart a
Marble cake		Denmark	Mixture of flavours including vanilla , coffee ,







Name	Image	Origin	Main ingredients
Mantecada		Northern Spain	Eggs, flour, sugar and butter (cow fat in the North ; Astorga ; corn flour in Colombia)
Makowiec		Poland	Poppy seed cake normally decorated with icing
Magdalena		Spain	Eggs, granulated sugar, unsalted butter, unbleached flour, lemon zest, baking powder and milk
Madeira cake		United Kingdom	Butter and sugar
Lemon cake		Unknown	Lemon
Layer cake			Yolk, sugar, butter, flour








Name	Image	Origin	Main ingredients
Lamington		Australia	Chocolate icing, and desiccated coconut
Lamanki		Poland	Chocolate , cinnamon
Lady Baltimore Cake		United States	Dried Fruit, Nuts, Frosting
Kutia		Poland , Belarus , Ukraine , Lithuania	Various nuts and raisins
Krowka		Poland	Chocolate , sponge base, caramel and coconut
Kransekake		Denmark , Norway	Almonds, sugar, egg whites







Name	Image	Origin	Main ingredients
Kouign-amann		Brittany , France	Butter
Kolaczki		Poland	Butter, sugar, jam, egg whites, different sweet
Kolacz		Poland	Sweet cheese and cream
Kliņģeris		Latvia	Yeast, raisins, spices
Kladdkaka		Sweden	Chocolate








Name	Image	Origin	Main ingredients
King cake		France, Spain	Sugar, cinnamon, milk, and butter
Kiev cake		Ukraine	Two airy layers of meringue with hazelnuts , and buttercream -like filling
Karpatka		Poland	Two to eight layers of very flattened sweet buns with cream and sweet cheese, normally served with fruit and cardamom and ice cream which may have been served on the side of this luxurious dessert
Kabuni		Albania	Rice, butter, mutton broth, raisins, sugar, cinnamon
Jaffa Cakes		United Kingdom	Orange juice
Ice cream cake		Unknown	Ice cream
Hot milk cake		Probably United States	Milk , and mocha
Goosey butter cake		United States	Butter








Name	Image	Origin	Main ingredients
Gingerbread		Probably United Kingdom	Ginger
Genoise (Genoese cake)		Probably Genoa	Whole egg
Genoa cake		Probably Genoa	Sultanas, raisins, glacé Cherries
Funing big cake		Funing County, Jiangsu province, China.	Its raw materials are traditionally comprised of rice , white sugar and refined lard . Due to health concerns associated with lard consumption, sometimes vegetable oil is used instead of lard. ^[1]
Fruitcake		Caribbean	Candied fruit ; many versions of the fruit cake contain sultanas and glace cherries .
Frog cake		Australia	Cream, icing

Name	Image	Origin	Main ingredients
Fondant Fancy Icing, cream		United Kingdom	
Flourless chocolate cake		Unknown	Chocolate
Faworki		Poland	A sweet crisp cake in shape of a bow
Fat rascal		United Kingdom	Dried fruit, peel, oats
Esterhazy torte		Hungary, Austria	chocolate buttercream, sponge cake
Eccles cake		United Kingdom	Currants

Name	Image	Origin	Main ingredients
Easter Cake		Poland	Easter Cake with icing
Dundee cake		United Kingdom(Scotland)	Fruit cake with almonds on it but without glaze
Dobos cake		Hungary	Spongecake layered with chocolate buttercream with thin caramel slices
Devil's food cake		United States	Chocolate and/or cocoa , and baking soda
Depression cake		United States	Made without milk, sugar, butter, or eggs
Date square		Probably Canada	Also known as Matrimonial Cake, is a layer cake with oat crumble
Date and walnut loaf		United Kingdom	Dates , walnuts , treacle , and tea
Dacquoise		France	Almonds, hazelnut, and chocolate
Cupcake		Worldwide	Varies; is usually topped with icing, but the color may vary (is sometimes topped with chocolate icing in which the case the icing will be brown, is sometimes orange and is sometimes orange).

Name	Image	Origin	Main ingredients
Croquembouche		France	Caramel , almond , and chocolate
Coffee cake		Germany	Cinnamon
Coconut cake		United States	
Christmas cake		United Kingdom	Dried fruit such as sultanas or raisins ; cinnamon , treacle , cherries is quite often topped with icing . If topped with icing it may be decorated with decorations, such as marzipan figures of St. Nick or Father Christmas , or may have labels such as "Happy Christmas".
Chocolate cake		Unknown	Chocolate
Chiffon cake		United States	Vegetable oil
Carrot cake		United Kingdom	Carrots

Name	Image	Origin	Main ingredients
Butterfly cake	 A round cake decorated with yellow frosting and fruit, shaped like a butterfly.	United Kingdom	Varies
Butter cake	 A round cake with a white frosting base and a dark chocolate top layer.	United Kingdom	Butter
Bundt cake	 A dark chocolate bundt cake with a yellow frosting center.	United States	Varies, often chocolate
Budapestlängd	 A rolled cake with white frosting, hazelnuts, and fruit.	Sweden	Rolled meringue-hazelnut cake filled with whipped cream , canned peach , apricot or mandarin orange
Buccellato	 A round cake with a white frosting base and a dark chocolate top layer, decorated with fruit.	Sicily	Honey , marsala , aniseed , and raisins
Boston cream pie	 A round cake with a white frosting base and a dark chocolate top layer.	United States	Egg custard, chocolate
Black Forest cake , often known as "Black Forest gâteau"	 A round cake with white frosting, cherries, and chocolate shavings.	Germany	Cherries, kirsch , and chocolate

Name	Image	Origin	Main ingredients
Birthday cake		International	Varies, usually chocolate or sponge, and is often with icing and candles ; number of candles on often said to represent some one's age, for example a cake for a nine year old will have nine candles
Bird Milk		Poland	Milk mousse with vanilla
Bienenstich (Bee Sting)		Germany	Almonds , honey , custard cream
Bibingka		Philippines	Coconut milk and rice flour
Better than sex cake		United States	Chocolate or yellow cake, sugar mixture, various
Baumkuchen		Germany	Varies
Battenberg cake		United Kingdom	Marzipan and apricot jam
Bara brith		United Kingdom (Wales)	Raisins , currants and candied peel
Banoffee pie		United Kingdom	Bananas, toffee, biscuits

Name	Image	Origin	Main ingredients
Banana cake/bread		United States	Banana , sometimes nuts and chocolate
Ballokume		Albania	Cornflour, butter, sugar and vanilla
Aranygaluska		Hungary or Romania	Yeasty dough; vanilla custard
Apple cake		Unknown	Apple
Angel food cake		United States	Egg Whites, Vanilla and cream of tartar
Angel cake		United Kingdom	Sponge cake, cream.