

Appendix 1

Glossary of ingredient terms

Ingredients are described in detail in other books including the author's *Technology of Biscuits, Crackers and Cookies*. However, it may be useful to list briefly the meaning of most of the terms used throughout this book.

Cereal and starch ingredients

flour, protein content	Nitrogen determined by Kjeldahl and multiplied by 5.75. This is not a wet gluten value.
flour, strong	White flour with a protein content of 10.5 % or more. Usually used for bread making.
flour, weak	Often known as biscuit flour, ideally with a protein content of less than 9.0 % but certainly not more than 10.0 %. The ash content is usually in the range 0.51–0.63%.
semolina	A coarse particle grade of milled cereal, usually wheat or maize. Used to give a gritty texture to biscuits.
gluten, vital dried	The protein from wheat flour that has been separated from the starch by a wet system and has subsequently been dried in a way that does not denature and prevent it forming gluten when hydrated and mechanically worked. Used to increase the protein content of flours.
wholemeal	Wheat flour made from virtually 100 % of the wheat grain and therefore rich in bran. Also known as Graham flour. The ash content is usually greater than 2%.
wheat bran	Fibre-rich material which consists of the outer layers of the wheat berry removed and graded for size at the flour mill.
wheat starch	Starch obtained from wheat flour after removal of nearly all the protein.

wheat germ	The embryo of the wheat berry. Rich in fat and usually heat treated to retard the development of fat rancidity.
cornflour/corn starch	Protein-free starch extracted from maize. Cornflour (USA) can also mean a yellowish flour obtained by milling maize. It is not used in this way in this book.
rice flour	Flour or fine semolina obtained from milling rice.
oatmeal/flakes	Oatmeal is a coarse flour obtained by milling oats. The more normal form of oats as used in biscuits is as flakes. These are rolled pieces cut from whole grains of oats. The thickness can be specified. All oat products are heat treated to retard the onset of fat rancidity. This affects the water absorption of the materials.
malt flour	A brown flour obtained by milling dried wheat or barley grains after they have been allowed to germinate. Malt flour is typically rich in α -amylase enzyme and is used when dough is fermented with yeast.
malted wheat	Lightly germinated wheat that after drying is milled into a coarse meal. This material is used as a flavour and texture source.
potato starch	Starch obtained from potatoes.
tapioca starch	Also known as cassava starch and manioc. Obtained from the swollen roots of the tropical plant <i>Manihot utilissima</i> .
arrowroot	Obtained from the roots of a tropical plant. Now rarely used in biscuits.
rye flour	This flour is milled in the same way as wheat but the flour is darker and produces very sticky doughs.

Sugars and other sweeteners

sugar, granulated	White crystalline sucrose. The most commonly available grade.
sugar, powdered/icing	Powdered sugar is normally produced by rough milling of granulated sugar. It is dusty but with a wide particle-size range. Icing sugar has a uniform very fine particle size.
sugar, caster	White crystalline sucrose. With a finer and narrower particle size range than granulated sugar.
sugar, Demerara/brown	Used to indicate a range of brown crystalline sucrose sugars with a coating of syrup of varying colour and flavour.
cane syrup 80%	Used to indicate a broad range of syrups with 80% solids derived from the refining of cane sugar. They can range from very dark syrup like molasses to golden syrup which may be partially inverted. Used exclusively for their excellent flavours.
invert syrup 70%	A syrup of 70% solids made by acid hydrolysis of sucrose. The result is a 50:50 mixture of dextrose and fructose which are both reducing sugars and contribute to the Maillard reaction in baking.
malt extract 80%	A thick glutinous syrup of 80% solids usually non-diastatic and obtained by water extraction of malted wheat or barley. The heat treatment used to concentrate

glucose syrup 80%	the solution destroys any enzymes. Used as an important flavour material. Rich in maltose, which is a reducing sugar. A syrup with 80% solids derived by partial hydrolysis of corn starch. Also known as corn syrup. There are various grades such as DE 42, DE 60, DE 90 which indicate the equivalent concentration of dextrose in the syrup. The other solids are a mixture of carbohydrates with larger molecules such as dextrans and polysaccharides.
saccharin	An artificial sweetener with intense sweetening properties.
dextrose monohydrate liquid sugar 67%	A fine white powder of dextrose, a reducing sugar. A solution of sucrose at 67% solids.
honey 80%	A natural product made by bees. The composition is very similar to invert syrup but the flavour properties are exceptional.
maltodextrin	A more or less tasteless polysaccharide powder obtained by partial hydrolysis of corn starch.
high fructose syrup 80%	A syrup with 80% solids. A specific type of glucose syrup prepared to have a much higher fructose content than normal glucose syrup. It is thus sweeter.

Fats

dough fat	Used to indicate a non-specific blend of anhydrous vegetable fats designed to have physical properties similar to butter fat. They are handled as bulk plasticised fat at about 26°C or in boxes.
butter	Fat solids obtained from milk and plasticised with 16% of water.
margarine	A blend of fats usually all of vegetable origin plasticised with 16% water and possibly some milk solids and colour.
oil/ butter oil	Used to indicate either a liquid fat (oil) or anhydrous butter.
HPKO	Hardened palm kernel oil, used in biscuit creams and some chocolate flavoured coatings.
lauric fats	Coconut and palm kernel fats which are high in lauric acid esters. Used for biscuit creams and fat sprays.
CBR	Cocoa butter replacement fat. A fat used to make a chocolate flavoured coating. Usually a lauric fat.
lecithin	A complex natural surfactant usually obtained from soya beans.
data ester	A specific surfactant. See also DATEM.
sucrose ester	A specific surfactant.
soya flour	Used to indicate a defatted flour obtained from soya beans. Used principally as a source of lecithin in biscuits.
GMS	Glycerol monostearate. A general purpose surfactant (emulsifier).
SSL	Sodium stearoyl lactylate, a surfactant.
DATEM	Diacetyl tartaric acid ester of mono- or diglyceride of a fatty acid, a surfactant.

Dairy products

cheese	Fresh cheese, usually of Cheddar type as this has the strongest flavour.
cheese powder	Dried cheese, usually Cheddar.
SMP	Skimmed milk powder. Obtained by drying milk after the fat has been removed.
FCMP	Full cream milk powder. Obtained by drying milk. The flavour is good but the shelf life is much shorter than is that of SMP.
whey powder	Obtained by drying whey, which is a by-product of cheese manufacture. Fat free and if demineralised the flavour is less salty and bitter. Commonly used as a cheaper substitute for SMP.
lactose	Milk sugar. A reducing sugar but used principally as a flavour enhancer for savoury products.
egg, dried	Dried whole egg. Rich in lecithin but not useful for producing a foam, which is done with fresh eggs.
egg, fresh	Shelled eggs that are either fresh or carefully thawed from frozen. The latter are always pasteurised because of the common danger of <i>Salmonella</i> contamination from eggs.
egg white	Either separated from fresh eggs or reconstituted from dried albumen.
egg yolk	Dried powder rich in lecithin.
fresh milk	Pasteurised whole milk.
milk, sweet condensed	Milk that has been concentrated by evaporation with added sugar to act as preservative.

Chemicals and aeration aids

amm. bic.	Ammonium bicarbonate (volatile salt) ammonium hydrogen carbonate
soda	Sodium bicarbonate (sodium hydrogen carbonate)
ACP/cream of tartar	Used to indicate an acid salt. Acid calcium phosphate or cream of tartar (potassium acid tartrate).
SAPP	Sodium acid pyrophosphate.
salt	Sodium chloride.
tartaric acid	Acidification additive.
citric acid	Acidification additive.
SMS	Sodium metabisulphite (or pyrosulphite), $\text{Na}_2\text{S}_2\text{O}_5$, a reducing agent used to modify the strength of gluten in doughs.
P. enzyme	Proteolytic enzyme. Usually a white powder that requires care in handling, used to modify the strength of gluten in doughs.
yeast, fresh	Used to ferment bread and some cracker doughs.
glycerine	Used as a humectant in sponge batters and with dried fruit and pastes.
calcium lactate	Dietary supplement.
mould inhibitor	Usually calcium propionate included in moist products to retard the growth of fungal moulds.
vitamins	Standardised preparations used to fortify dietetic products especially those for babies and infants.

magnesium carb. Occasionally used as a release aid in wafer batter.
L-cysteine A rarely used alternative to SMS.

Flavours

vanilla/in Source of vanilla flavour. Often the synthetic material ethyl vanillin.
spice/herbs Used to indicate any powdered plant product which is used for flavouring. A spice or a herb.
liquid flavour Used to indicate a bottled flavour.
powder flavour Used to indicate a powdered flavour material not directly of plant origin.
MSG Monosodium glutamate. A flavour enhancer for savoury products.
dried autolysed yeast Derived from yeast and used as a savoury flavouring.
lactic acid Flavouring material for savoury products.

Other ingredients

currants/sultanas Dried grapes. Currants are black small seedless raisins from Greece, sultanas are usually golden brown and have been bleached at the time of drying.
raisin paste A stiff black paste made by milling dried raisins. A valuable flavouring material.
fig paste Macerate of dried whole figs of a moisture content about 24%.
des. coconut Desiccated coconut, always of fine or flour grade for use in biscuits.
cocoa Powder obtained by expressing the fat from roasted cocoa beans in the manufacture of chocolate. The fat content is normally 10–12% and the colour can be from pale red to black depending on the process used. Used principally in biscuits for colouration.
cocoa mass Product of grinding and refining, to a very fine particle size, roasted cocoa beans. The precursor of chocolate and cocoa manufacture.
colour Used to indicate some additional colouring material.
caramel Also known as toffee. A viscous fat/syrup material with excellent flavour and texture.
caramel colour A dark brown liquid derived from sugar. Used for colouring dough.
biscuit recycle Milled baked biscuit material that is incorporated into a new dough or sandwich cream. Probably of variable quality.
nuts Used to indicate fresh or roasted nuts of various particle size.
nut paste Finely ground and refined nuts.
almonds, ground A fine meal prepared from roasted almonds.
choc chips Used to indicate pieces of chocolate. Either small lumps or uniformly shaped drops of various size.
minced peel Candied peel usually of citrus origin.
added water Total amount of added water. The amount may have to be varied to suit the consistency of the dough.