

Flavor and flavor enhancers

Flavors are concentrated preparations used to impart a specific aroma to food or beverages.

Flavors are added to food products for:

1. To create a new taste
2. To mask less desirable flavors- to cover harsh or undesirable tastes
3. To enhance, extend or increase the potency of flavours already present
4. Stimulation of flavour perception of expensive flavours
5. To supplement other more expensive /unbillable flavors

Fruit aroma consists of few hundreds to thousand compounds for example orange flavour contain more than 200 compounds ranging from simple phenolic to complex terpenoids, esters etc.

Flavour of beverage must be identical to the fruit which is used as base material. Therefore, mimicking of fruit flavour in beverages is quite complex task and requires great expertise.

Various compounds used for flavouring are divided into three groups.

1 Natural flavours

Practically natural flavours are essential oils, oleoresins, and true fruit extracts. Natural flavours comprise extracts from natural sources in the form of essential oils, oleoresins, essence or extractive, distillate or products formed during processing such as roasting, heating etc. Example of natural flavour is roasted coffee beans , extracts of vanilla roots, etc. Fruit flavour concentrate is a special type of natural flavor which is prepared by removing the water under vacuum and added back aroma back into the concentrate. The most common fruit flavour concentrate include grape, apple, berry and citrus fruits.

2. Nature identical flavours

These can be defined as flavouring substances that are made or synthesized or isolated by using chemical processes. These are chemically and organoleptically identical to the naturally occurring flavor substance and do not contain any artificial substances. Example of nature identical flavouring are benzaldehyde for bitter almond, ethyl vanillin for vanilla, limonene for orange, isoamyl acetate for banana, methyl anthranilate for grape etc.

3. Synthetic flavours

Synthetic flavour is substances which are not naturally occurring products intended for human consumption. They are produced by application of fractional distillation process and by additional chemical modification of naturally sourced chemicals, crude oil or coal tar. These are essence and produced by various processes or by mixing various compound specified in the aroma of any fruit. Although, they are chemically different from natural compounds but identical in flavour perception. Example: esters give the characteristics fruity aroma.

Flavour enhancers

Flavour enhancers give food an extra dimension to food and drinks by intensifying the flavors of food and drinks. Since only very small quantities of flavour enhancers are used, it is not appropriate to discuss the nutritional value in terms of energy, proteins, fats, carbohydrate, vitamins and minerals. However when alcoholic beverages are used in hot sauces and such, the alcohol evaporates off and there is then no question of nutritional value. For example, monosodium glutamate known as MSG, is added to processed foods, especially soups, sauces and sausages.